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ABSTRACT

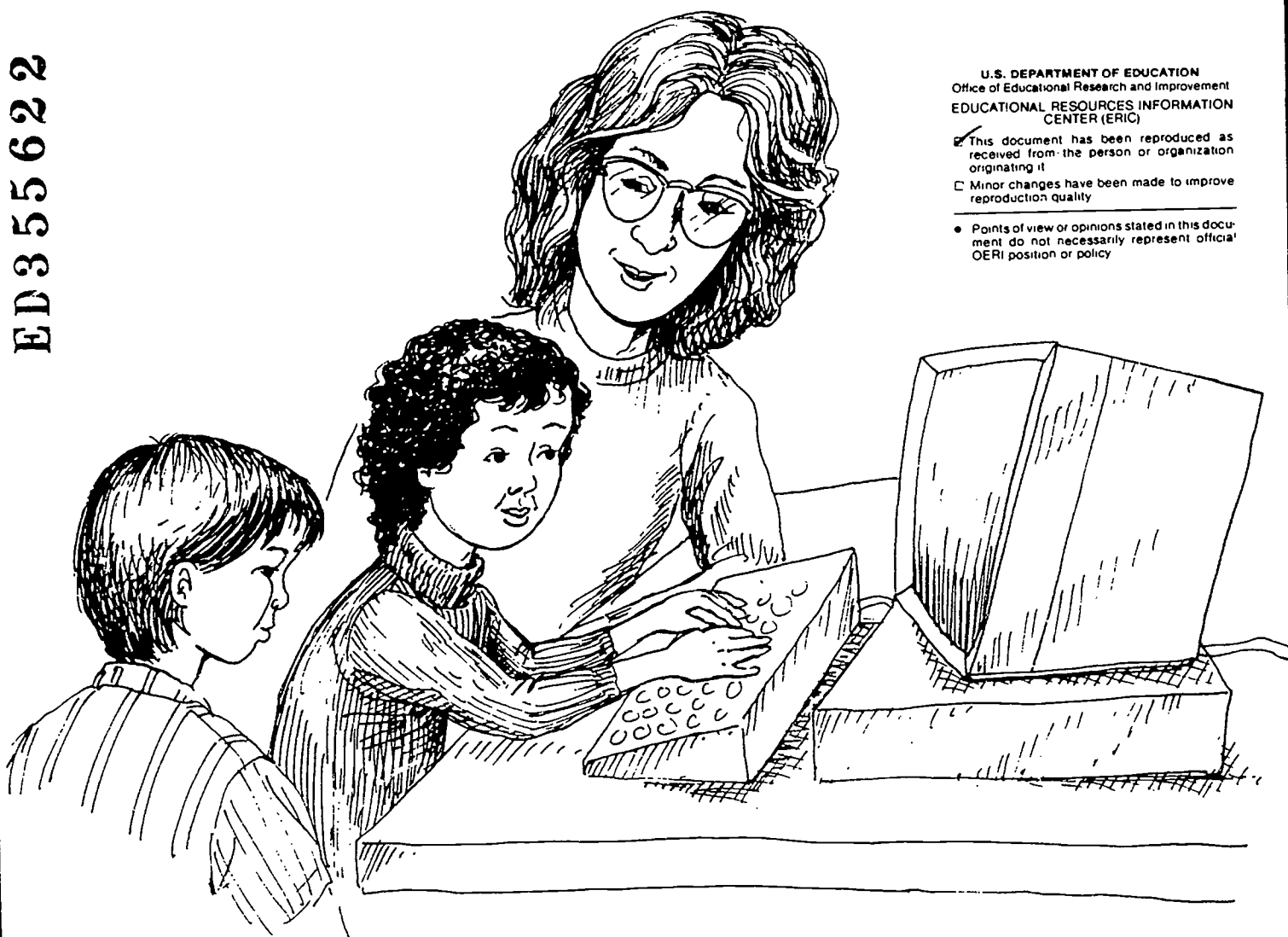
Vermont is working to reform its educational system, and, according to some assessments, improvements are being made. On average, Vermont's students write reasonably well and fourth graders perform better than national averages in mathematics on selected questions from the National Assessment of Education Performance. However, many students also suffer from poverty, hunger, and abuse that hinders their school performance. Vermont has four goals for improving its educational system. First, every child must become a competent, caring, productive, responsible individual and citizen who is committed to continued lifelong learning. Lack of preparedness to enter school, poverty, teen pregnancy, drug abuse, and poor student health and well-being are obstacles to accomplishing this goal. Second, schools will be restructured to support very high performance for all students. Special-education programs and math, science, and technology education are to be improved. Third, the state will recruit and support the nation's most effective teachers and school leaders. New professional development opportunities will be offered, and teacher assessment and salaries will also be reviewed. Fourth, partnerships will be formed among parents, educators, students, and other citizens to support teaching and learning in every community. (JPT)

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The Condition of Education 1992

*Making Changes,
Measuring Results*

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The Condition of Education 1992

Making Changes, Measuring Results

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How Are We Doing? Here Are the Facts

A Message from the Commissioner

Vermont is working very hard at education reform, and showing some results for that effort.

The assessment data, though they are incomplete at this writing, do reveal that Vermont students on average write reasonably well, but there is a very wide range in performance. The mathematics results show that Vermont fourth-grade students perform better than national averages at least on the selected questions from the National Assessment of Education Performance. But these figures only whet our appetites for the portfolio assessment and the school-by-school results to come.

We see in this report the first glimpses of changes in school practice as a result of restructuring, and we recount the significant awards — from the National Science Foundation and the New American Schools Corporation — that offer the promise of more gains in the future. Some of the most dramatic restructuring results are in special education. The two-year decline in special education enrollments indicates the sweeping changes underway in those programs.

And we also see the stark reality — poverty, hunger, and abuse — that clouds school performance for some students. The need for Success by Six and the many other ventures with Human Services is plain for all to see.

My own reaction? There are enough good results to show that the enterprise is moving in the right direction. And I am proud of the people who delivered those results. I wish progress could come faster, but change of the magnitude we need will take persistence.

I urge all Vermonters to examine these results, and then to consider the situation closer to home. Last year, 139 school communities met for School Report Night to consider student performance and how it might be improved. It is time to gather again, to talk with our children and our neighbors about these matters that affect our present and future.



Richard P. Mills
Commissioner of Education

Here are Some Highlights in Vermont Education Today:

- In 1990-91, after two years of development, Vermont became the first U.S. state to pilot a statewide assessment program that incorporates student portfolios. In 1992, Vermont's writing and mathematics assessment programs involved most of the fourth and eighth graders in the state's public schools. More than 20 states, including Vermont, and large metropolitan areas in the United States are working together to develop similarly authentic means of performance assessment.
- In the first full year of Vermont's writing and mathematics assessment programs for fourth and eighth grades, the Uniform Assessment showed largely positive — though mixed — quality of performance.
- Vermont has reversed the decline in SAT scores. Verbal scores statewide rose by five points in 1992; math scores rose by two points.
- In 1992 Vermont was awarded a five-year, \$10 million National Science Foundation grant. The NSF funding will underwrite a system-wide reform of math, science, and technology education programs. Vermont was one of only 11 states to win an NSF grant in 1992.
- The Common Core of Learning project has involved several thousand Vermonters in a collaborative effort to define what all our learners must know to succeed in the 21st Century. Working drafts of the Common Core are being circulated statewide.
- As a result of Act 230, a state law aimed at integrating special education students into the regular classroom, Vermont has seen a decrease in the number of students served outside the classroom. In 1989-90, Vermont saw a 6.5 percent decrease in the number of special education students served outside the regular classroom and a 6.7 percent decrease in 1990-91, while the nationwide number increased by 2.8 percent in 1990-91.
- Vermont has the country's highest percentage of special education students served in the regular classroom — 81.49 percent, compared with the national average of 31.49 percent.
- Vermont has reduced special education residential placements from 206 in 1990-91 to 167 this year.
- In 1992 Vermont, as part of a national partnership, won a New American Schools grant designed to assist in developing "break the mold schools." New Ameri-

can Schools chose Vermont and 10 other winners from more than 700 applications.

- Local and regional standards boards for school educators, now in place across the state, are working closely with teachers and requiring them to build long-range professional development goals.
- In 1992, 88 percent of construction-trade programs offered at regional technical centers were certified by the Associated General Contractors of Vermont as meeting national industry standards.

But here are some reasons that we're still concerned:

- One in nine Vermont children lives below the poverty level.
- Twenty-eight percent of Vermont kindergartners are not prepared to succeed in school.
- Drug abuse prevention programs are growing, but still have much ground to cover.
- Between 1989 and 1991, the number of reported homeless children of school age in Vermont grew by 75 percent.
- Ninety-one percent of schools in Vermont offer Chapter One services — but less than half the eligible population of students is served.
- Not all schools offer school lunch and breakfast programs.
- Twenty-five Vermont schools still allow tobacco use on school grounds.
- There were 1,505 teenage pregnancies in Vermont in 1990.
- In 1990, 17.5 percent of all Vermont 19-year-olds had dropped out of school.
- After growing for a decade, the percentage of graduates who continue their education has begun to decline.

Goal 1:

Vermonters will see to it that every child becomes a competent, caring, productive, responsible individual and citizen who is committed to continued learning throughout life.

- Twenty-eight percent of Vermont kindergartners are not prepared to succeed in school.
- The school breakfast program has grown markedly.
- One in nine Vermont children lives below the poverty level.
- Drug abuse prevention programs are growing, but still have much ground to cover.
- Vermont's teen pregnancy and infant mortality rates are below the national average.
- Between 1989 and 1991, the number of reported homeless children of school age in Vermont grew by 75 percent.
- Ninety-one percent of schools in Vermont offer Chapter One services — but less than half the eligible population of students is served.
- Success by Six, a new collaboration, is funding community projects that help to provide local preschoolers with what they need now to do well later in school.
- A new, efficient program to avoid early reading failure has worked well in its first Vermont trials.
- In the first full year of Vermont's writing and mathematics assessment programs for fourth and eighth grades, the Uniform Assessment showed largely positive — though mixed — quality of performance.
- Today, issues of discrimination and equity are growing in our schools, as they are in our whole society.
- Vermonters' SAT scores rose in 1991-92. But our students are still scoring below the national level in math, and women are still scoring below men.
- The level of parents' education and income relate strongly to SAT performance. Also, parents' education and property ownership are related to whether students graduate and continue their schooling.
- In 1990, 17.5 percent of all Vermont 19-year-olds had dropped out of school.
- After growing for a decade, the percentage of graduates who continue their education has begun to decline.
- A growing use of small-group instruction helped the Adult Basic Education program reach almost 6,000 Vermonters in 1992.
- Vermont has pioneered the use of interactive television to meet adult learners' needs.
- Adult enrollments in technical-education programs are growing fast. An effort called "Futures" helps many Vermonters reach for self-sufficiency.
- Vermonters statewide are helping build a consensus on what all learners must know to succeed in the 21st Century.

How can we join with other social services agencies to ensure that every child, every day, comes to school ready to learn?

What kind of curriculum will it take to realize Goal 1?

How can technology be used to support high performance for all students?

How can we measure progress toward meeting this goal?

How do we ensure that every child becomes a lifelong learner?

How do we ensure that every school provides a comfortable, safe climate free from harassment and discrimination?

Student Health and Well-Being

Twenty-eight percent of kindergartners are not prepared to succeed in school. One in nine Vermont children lives below the poverty level. Vermont's teen pregnancy and infant mortality rates are below the national average. The school breakfast program has grown markedly. Drug abuse prevention programs are growing, but still have much ground to cover.

Profile of Young Vermonters

Vermonters who are under 18 years old number 140,289 — 26 percent of the state's total population.

Among these young Vermonters, 98.4 percent are "white." The United States, as a whole, is about 74 percent white, depending on how people categorize themselves.

In 1990, Vermont's young population included these groups:

Age	Males	Females	Total
Under 1	3,733	3,516	7,249
1-4	17,442	16,570	34,012
5-14	40,986	38,793	79,779
15-24	43,286	41,923	85,209

In 1991, 19,000 children less than 18 years of age were not covered by health insurance.

There were 231 substantiated cases of sexual abuse in children ages 4 to 6 in 1991.

Source: 1990 Vital Statistics, Vermont Department of Health

Kindergartners

According to a national survey of kindergarten teachers conducted in 1991 by the Carnegie Foundation for the Advancement of Teaching, 28 percent of Vermont kindergartners are not ready to participate successfully in school. For these kindergartners who are not ready to learn, the following percentages of teachers reported these "serious problems":

Serious Problem	Percent of Teachers Citing It
Language richness	43 percent
Emotional maturity	37 percent
General knowledge	27 percent
Social confidence	28 percent
Moral awareness	13 percent
Physical well-being	9 percent

Sixty-eight percent of teachers report that *improving parent education is the most important need in helping prepare children for school.*

Source: Ready to Learn, A Mandate for the Nation. Ernest L. Boyer, 1991.

Nutrition

The school breakfast program has grown dramatically in the past few years. In 1988 there were 38 schools serving 218,865 breakfasts. In 1992, 101 schools participated, serving 879,583 breakfasts. In 1992 about 45,000 lunches and about 5,000 breakfasts are being served each day.

The school lunch program saw a 2 percent increase in the number of meals served — from 6,963,923 in 1991 to 7,110,375 in 1992.

Summer food-service program sites nearly doubled from 1990 to 1992 (11 sites in 1990, 21 in 1992). The number of meals served has increased from 39,468 to 51,858.

A recently completed survey of Vermont food shelves and community kitchens found that:

- Every month 7,100 children under the age of 18 depend on community food shelves.
- One out of every six meals served at Vermont's community kitchens was served to children under 18.

*Sources: Vermont Office of Economic Opportunity
Vermont Department of Education*

Poverty Level

The 1990 Census shows that a great number of children are living below the poverty level.

- One out of every nine children under the age of 18 is living below the poverty level;
- One out of every seven children under the age of five is living below the poverty level;
- In female-headed families, one out of every three children under the age of 18 is living below the poverty level;
- 53.6 percent of female-headed households with children under the age of five are below the poverty level.

Source: Vermont Office of Economic Opportunity

Prevention Programs

Peer Leadership programs train students to provide support and information to their peers, examine their own attitudes and behaviors, and develop their own educational projects to promote health in the school community.

During the 1991-92 school year, 12 schools had Peer Leadership programs that were involved with alcohol and other drug abuse prevention. To assist in promoting alcohol and drug abuse prevention in schools:

- 60 schools have students trained through the Green Mountain Teen Institute;
- 51 schools have Students Against Drunk Driving chapters;
- 37 schools have students trained through the Junior High Peer Prevention Project;
- 42 schools have peer counselors, and
- 316 schools did not allow students to use tobacco products on school grounds.

However, there is still much progress to be made in school prevention programs:

- 22 schools report not having a policy that meets the requirements of the federal Drug Prevention Program Certification (Section 5145, Drug-Free Schools & Communities Act of 1986). Federal law states that schools not in compliance with this section are not eligible to receive *any* federal money.
- 10 schools report not having an educational program that meets the federal Drug Prevention Program Certification.
- 131 schools report not having a written referral agreement with an agency funded by Vermont to provide out-patient alcohol and other drug abuse screening and treatment, even though Act 51 — passed in 1983 — requires such an agreement.
- 25 schools still allow students to smoke or chew tobacco on school grounds.

Source: Vermont Department of Education

Teen Pregnancies

In 1990 there were 1,505 teen pregnancies in Vermont. More than 700 babies were born to mothers between the ages of 15 and 19.

More than half (485) of the babies born to Vermont mothers between the ages of 15 and 19 were premature.

More than one quarter (243) of the babies born to mothers between 15 and 19 were premature *and* of low birth weight (less than 2.5 kilograms).

Most (90.5 percent) of the births to teenagers had benefited from prenatal care that began in the fourth month or earlier — but 26 births occurred with no prenatal care.

Source: 1990 Vital Statistics, Vermont Department of Health

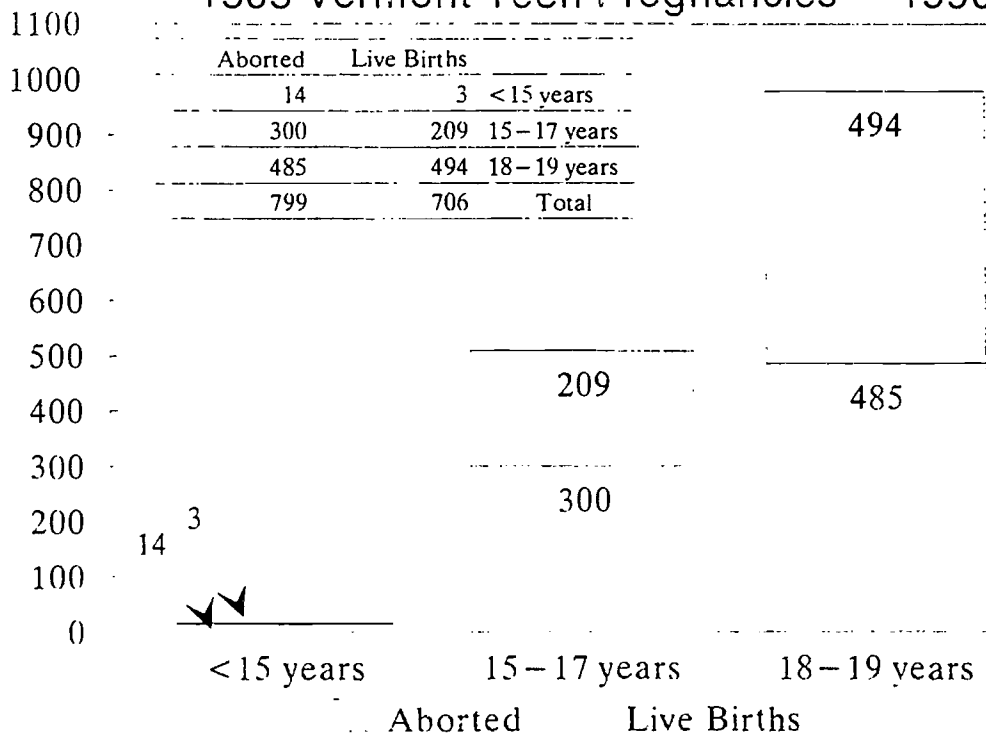
Deaths

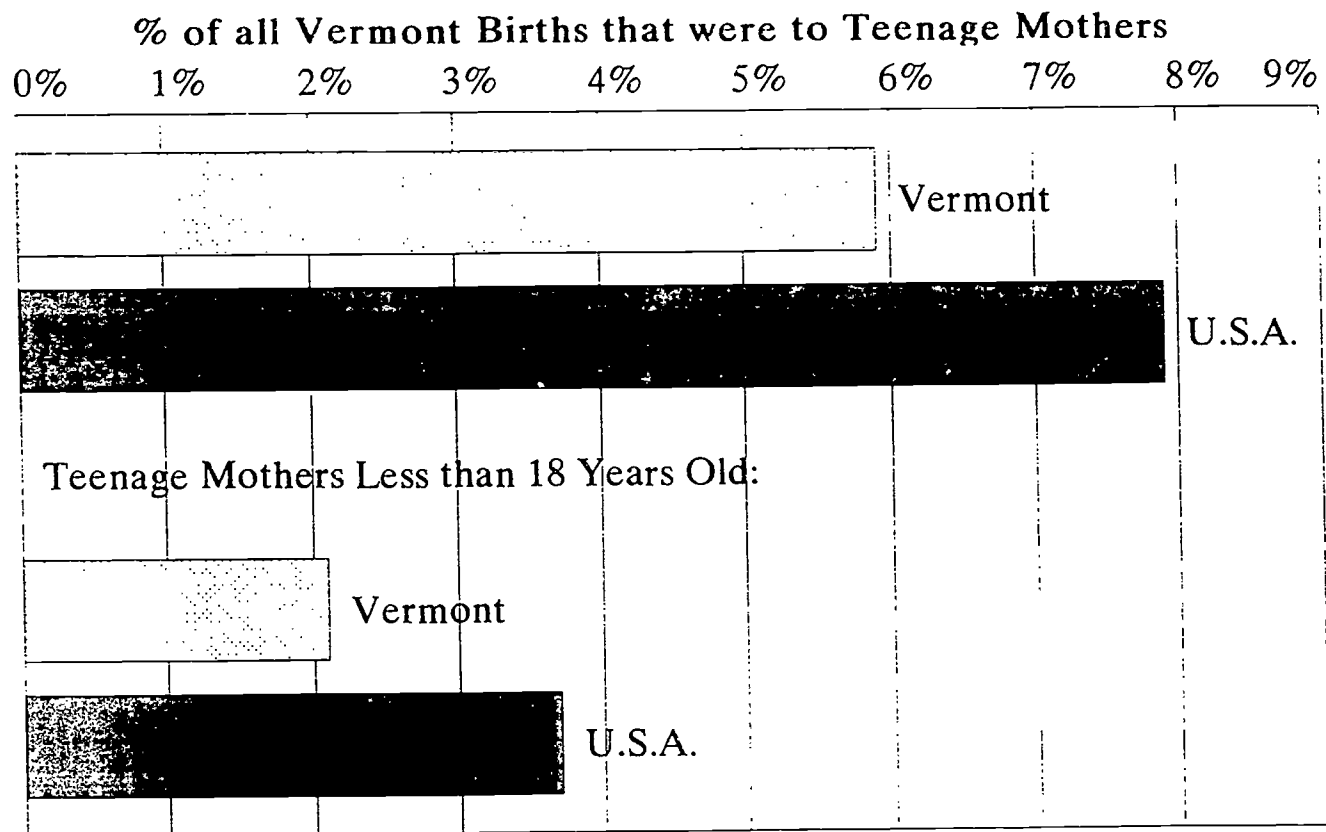
In 1990, 54 Vermont infants less than one year old died, yielding an infant mortality rate of 6.5 per 1,000 live births. The U.S. infant mortality is 9.8.

In 1990, 68 Vermonters between the ages of 15 and 24 died. These were the listed causes of those deaths:

- 29 were from car accidents;
- 15 were from disease and illness;
- 14 were suicides;

1505 Vermont Teen Pregnancies — 1990





- Seven were from accidents other than car, and
- Three were homicides.

Source: 1990 Vital Statistics, Vermont Department of Health

Educational Attainment

The 1980 census found that 71 percent of all adults in Vermont had graduated from high school or earned their Graduate Equivalency Diploma. The 1990 census indicates this figure has risen to 80.8 percent.

The 1980 census also reported that 19 percent of Vermonters were college graduates; by 1990 this had risen to 24.3 percent.

Source: U.S. Census Bureau

Homeless Children

Between 1989 and 1991, the number of reported homeless children of school age in Vermont grew by 75 percent.

Homelessness continues to be a growing problem for Vermont's children. The period 1989-1991 saw a 75 percent increase in reported homeless children in grades K-12, and a clearer identification of homeless preschoolers.

Reported Homeless Children		
	1989	1991
K-12 Attending School	217	427
K-12 Not Attending School	100	129
Preschool	not available	240

How can we restructure schools to meet the needs of a growing population of homeless children?

Source: Vermont Department of Education

Chapter One Services

Ninety-one percent of schools in Vermont offer Chapter One services, yet less than half the eligible population of students is served.

Chapter One services are designed to help children who are behind their peers in reading and math, along with children of migrant workers and those who need to make progress in English proficiency. Children who receive Chapter One support do have a higher rate of growth than if they had not been assisted, but the gains are not as great as we would like to see.

Standardized tests, which yield NCEs (normal curve equivalents), are given to Chapter One students in grades 2-12 annually as one measure of their progress. In the 1990-91 school year, students who took the

reading portion of the standardized tests showed a gain of 5.8 NCEs. Students who took the math portion of the standardized tests realized a gain of 5.3 NCEs.

If Chapter One is an isolated program, we will continue to see small gains; if Chapter One is incorporated into a restructured school, we believe there could be large gains among these students.

How do we ensure that Chapter One is part of a total restructure, so each student will see large gains in growth?

Source: Vermont Department of Education

Success by Six

A new collaboration is funding community projects that help to provide local preschoolers with what they need now to succeed later in school.

"Success by Six" is a new collaborative program shared by the Agency of Human Services and the Department of Education. This initiative encourages a series of community-based pilot projects that focus on children as they move through the first years of life, until they enter school. Vital contributors to children's healthy growth and development include:

- Enriched prenatal care;
- High-quality child care;
- Preschool education;
- Parent education, and
- Social supports.

Each community is encouraged to shape its Success by Six program as it sees fit to best serve its children.

In this pilot year, seven communities — Burlington, Springfield, Morrisville, Middlebury, Barre, Bennington, and Brattleboro — have received a total of \$134,000 to fund various Success By Six projects.

Sources: Vermont Department of Education
Vermont Agency of Human Services

Reading Recovery

A new, efficient program to avoid early reading failure worked well in its first Vermont trials.

"Reading Recovery" is a new program that was brought to Vermont for the first time in 1991-92.

It is an effective early-intervention effort designed to help first graders who are at risk of reading failure. Nineteen Vermont schools are currently using the system.

Reading Recovery students receive individual lessons from a specially trained teacher for only 12-16 weeks, compared with the three to five years spent in most traditional remedial approaches.

In southeastern Vermont, 14 teachers were trained in Reading Recovery this past year. Each teacher works with four students each day, and attends a weekly graduate seminar. In the 1992-93 school year, 11

additional teachers are being trained.

Of 109 students in the Southeast Vermont Consortium who participated in this extra-help program, 75 received at least 60 lessons in the Reading Recovery program. Eighty-seven percent of these 75 students were able to be "discontinued" from the program because they were able to read at the same level as their average-level first grade classmates. The remaining 10 children (13 percent) all made significant gains, but not enough to reach the average of their class.

Two new Reading Recovery consortia have been set up to begin teacher training in the 1993-94 school year, one in Franklin County and the other between Barre Town and Bradford. In addition, interest is building in the Chittenden County area.

Source: Vermont Department of Education

Assessment

In the first full year of Vermont's writing and mathematics assessment programs for fourth and eighth grades, the Uniform Assessment showed largely positive — though mixed — quality of performance.

The Vermont Writing Assessment Program

A System With Depth

Each student's writing assessment consists of three sets of scores: Portfolio, Best Piece, and Uniform Assessment. The portfolio contains a collection of student work, including a student-nominated "best piece." The uniform assessment is a timed, 90-minute response to a uniform writing prompt.

In Vermont's writing assessment program, no student's writing receives a single number or letter grade. Instead, we look at student writing through five "lenses," gauging its effectiveness in the realms of Purpose, Organization, Detail, Voice/Tone, and Usage. A separate score for each category is assigned for each of the criteria. So each student's writing assessment consists of three sets of scores: five Portfolio scores, five Best Piece scores, and five Uniform Assessment scores.

For each criterion, a piece of writing is judged by

whether it met the standards *extensively, frequently, sometimes, or rarely*. Because a single piece could, for example, receive an Extensively for purpose, a Frequently in organization, a Sometimes in detail, a Rarely in voice/tone, and a Frequently in usage, the resulting combination of scores gives a more complete picture of student writing ability than can be attained with other types of assessment.

Scoring the Assessment

Portfolios. After training, Vermont teachers scored their own students' portfolios and best pieces. Representative samples of the portfolios and best pieces were assessed by second readers, also teachers. When second readers' scores did not agree with those of the first reader, the results of those two readers were considered to be not in agreement.

In this first year of the program, more than half of the participating teachers had results that were not in agreement. For this reason, the data on portfolio scores are not as accurate as could be wished, and results are not yet available.

The problem of attaining better agreement between scorers is being addressed by all the parties involved, and considerable effort will be expended this year to develop training and materials that will help teachers to score in better agreement with each other.

Uniform Assessment. Professional readers were hired by an independent contractor to score the uniform assessments. Agreement between raters was checked more stringently in this case. Raters were considered to be "in agreement" only if their scores were identical.

Primarily because they were scoring only one piece of writing, the raters reached very high agreement. These results, which follow, offer a fair assessment of how well fourth and eighth grade students write, under test-like conditions, in response to a writing prompt.

Uniform Assessment: The Results

The charts that follow present the statewide results of the Uniform Assessment that was given to 7,461 fourth graders and 6,476 eighth graders.

The statewide percentage of each level was computed at

each grade level as the average (the *mean*) of the percentages from all Vermont's supervisory unions. The chart then gives the *range* of scores — the lowest and highest percentage scored by any supervisory union for that level of that criterion.

Grade 4

	Purpose		Organization		Detail		Voice/Tone		Usage	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
Extensively	4.3%	0-9%	2.9%	0-9%	3.7%	0-8%	2.5%	0-8%	4.8%	0-12%
Frequently	41.6%	16-55%	32.5%	13-48%	33.4%	9-52%	22.0%	0-32%	45.1%	19-64%
Sometimes	46.1%	31-64%	54.5%	39-68%	55.6%	38-73%	54.9%	41-74%	39.5%	21-53%
Rarely	6.8%	0-25%	8.9%	0-34%	6.1%	0-25%	19.4%	9-50%	9.2%	0-25%

Grade 8

	Purpose		Organization		Detail		Voice/Tone		Usage	
	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range
Extensively	10.8%	0-36%	7.6%	0-29%	10.2%	0-38%	9.4%	0-37%	10.0%	0-37%
Frequently	41.2%	6-54%	32.5%	6-62%	38.9%	3-57%	31.7%	3-48%	45.6%	20-60%
Sometimes	39.1%	16-60%	47.2%	29-66%	41.9%	17-62%	47.3%	30-67%	34.7%	9-59%
Rarely	7.1%	0-26%	10.9%	0-49%	7.2%	0-40%	9.7%	0-29%	7.6%	2-22%

Because percentages of non-scorable tests are not included in the chart, the mean percentages given do not add up to 100%.

Vermont Writing Assessment Guide

Analytic Assessment Guide

	Purpose	Organization	Details	Voice/Tone	Usage, Mechanics, Grammar
In assessing, consider...	<p>The degree to which the writer's response</p> <ul style="list-style-type: none"> establishes and maintains a clear purpose demonstrates an awareness of audience and task exhibits clarity of ideas 	<p>The degree to which the writer's response illustrates</p> <ul style="list-style-type: none"> unity coherence 	<p>The degree to which the details are appropriate for the writer's purpose and support the main point(s) of the writer's response</p>	<p>The degree to which the writer's response reflects personal investment and expression</p>	<p>The degree to which the writer's response exhibits correct</p> <ul style="list-style-type: none"> usage (i.e. tense formation, agreement, word choice) mechanics — spelling, capitalization, punctuation grammar sentences as appropriate to the piece and grade level
Extensively	<ul style="list-style-type: none"> Establishes and maintains a clear purpose Demonstrates a clear understanding of audience and task Exhibits ideas that are developed in depth 	<ul style="list-style-type: none"> Organized from beginning to end Logical progression of ideas Clear focus Fluent, cohesive 	<ul style="list-style-type: none"> Details are effective, vivid, explicit, and/or pertinent 	<ul style="list-style-type: none"> Distinctive voice evident Tone enhances personal expression 	<ul style="list-style-type: none"> Few, if any, errors are evident relative to length and complexity
Frequently	<ul style="list-style-type: none"> Establishes a purpose Demonstrates an awareness of audience and task Develops ideas but they may be limited in depth 	<ul style="list-style-type: none"> Organized but may have minor lapses in unity or coherence Transitions evident Usually has clear focus 	<ul style="list-style-type: none"> Details are elaborated and appropriate 	<ul style="list-style-type: none"> Evidence of voice Tone appropriate for writer's purpose 	<ul style="list-style-type: none"> Some errors are present
Sometimes	<ul style="list-style-type: none"> Attempts to establish a purpose Demonstrates an awareness of audience and task Exhibits rudimentary development of ideas 	<ul style="list-style-type: none"> Inconsistencies in unity and/or coherence Poor transitions Shift in point of view 	<ul style="list-style-type: none"> Details lack elaboration or are repetitious 	<ul style="list-style-type: none"> Evidence of beginning sense of voice Some evidence of appropriate tone 	<ul style="list-style-type: none"> Multiple errors and/or patterns of errors are present
Rarely	<ul style="list-style-type: none"> Does not establish a clear purpose Demonstrates minimal awareness of audience and task Lacks clarity of ideas 	<ul style="list-style-type: none"> Serious errors in organization Thought patterns difficult, if not impossible, to follow Lacks introduction and/or conclusion Skeletal organization with brevity 	<ul style="list-style-type: none"> Details are random, inappropriate, or barely apparent 	<ul style="list-style-type: none"> Little or no voice evident Tone absent or inappropriate for writer's purpose 	<ul style="list-style-type: none"> Errors are frequent and severe

Non-Scorable

- Is illegible: i.e., includes so many undecipherable words that no sense can be made of the response,
OR
- Is incoherent: i.e., words are legible, but syntax is so garbled that response makes no sense,
OR
- Is a blank paper

Some clear conclusions can be drawn from these data:

Students write reasonably well.

- 52 percent of eighth graders scored Extensively or Frequently for Purpose. Almost 46 percent of fourth graders scored Extensively or Frequently for Purpose.
- Almost 56 percent of eighth graders, and 50 percent of fourth graders, scored Extensively or Frequently on Usage.
- 49 percent of eighth graders scored Extensively or Frequently on Detail.

Students' performances are not consistent across criteria.

In contrast to the relatively high scores on Purpose, Usage, and (for eighth grade), Detail:

- Almost 75 percent of fourth graders, and 57 percent of eighth graders, scored Sometimes or Rarely on Voice/Tone.
- More than 63 percent of fourth graders, and 58 percent of eighth graders, scored Sometimes or Rarely on Organization.
- Only 37 percent of fourth graders scored Extensively or Frequently on Detail.

In all criteria, the range of performance is great.

- In eighth grade for Organization, the range of Frequently scores is 56 percentage points — 6 to 62 percent. The range of Rarely scores is 0 to 49 percent.
- In fourth grade for Voice/Tone, the range of Frequently scores is 0 to 32 percent. The range of Rarely scores is 9-50 percent.

Evaluating the Writing Assessment

Interviews with participating teachers on the assessment process yielded some very positive comments, including these:

- "[Students] can now critique pieces of writing better than they could before."
- "The whole process let students take ownership of their writing."
- "This whole approach has a laudable intent — to design an assessment to measure what we actually teach."

But teachers also raised some concerns, including these:

- "I was very leery that this approach would be used to evaluate teachers."
- "I continually got contradictory information — that was the most frustrating part about the whole

program."

- "Some parents were clearly upset at the amount of time I had to spend out of school for training and scoring."

The Vermont Mathematics Assessment Program

Portfolio and Uniform Assessment

Vermont's assessment program in mathematics includes two instruments — the Portfolio and the Uniform Assessment.

During the school year, students assemble and submit portfolios of their best problem-solving and communication work in mathematics. Each portfolio is unique; and though they provide teachers and students with a vehicle for showcasing their work, portfolios are limited in that they cannot yet be linked to any national comparative data. The New Standards Project will create the national link.

Because of problems in scorer agreement similar to those found in the writing portfolio assessment, a complete report of statewide scores is not available at this time. There are, however, a number of interesting and worthwhile conclusions that we would like to share.

- The number of students participating in statewide assessment rose from about 11 percent in 1990-91 to about 85 percent of fourth graders, and from about 20 percent to about 85 percent of eighth graders.
- In 1991-92, most portfolios had more scorable pieces than in the pilot year, and they were "thicker" and richer
- There were no *fours* scored in the pilot year, but in 1991-92 students began to score at the top of the scale. Mathematics portfolios are given scores that range from *one* to *four* on seven separate criteria. A score of *four* is the highest possible.
- Analysis of the pilot results highlighted the criterion *Use of Reflection, Justification, Analysis, Verification in Problem Solving* as needing emphasis. This year's results show that performances at levels *three* and *four* in this criterion are up dramatically. Students are learning to think about their thinking.

The Uniform Assessment complements the Portfolio, and is the source of the data reported on these pages. In 1991-92 the Uniform Assessment tests were given to more than 1,400 fourth grade and more than 1,100 eighth grade students. The test is designed to be reported on a statewide, supervisory union, and school basis — not for individual students. In this first year of the program, results were reported only statewide.

When reporting is expanded to the local level, this will help schools and communities target aspects of the curriculum for attention and improvement.

In the 1991-92 Uniform Assessment, a sampling of schools was chosen to represent the variety and types of schools in Vermont. The tests were given by classroom teachers during the last week of March; the results that follow show how this representative sampling of Vermont fourth and eighth graders performed.

Designed to measure a broad scope and variety of mathematical content and abilities, the Uniform Assessment was structured much like the National Assessment of Educational Progress (NAEP). Both look at these content "strands":

- Numbers and Operations
- Measurement
- Geometry
- Data Analysis, Statistics, and Probability
- Algebra and Functions

Within each strand, the tests measure three abilities — *Conceptual Understanding*, *Procedural Knowledge*, and *Problem Solving*.

Vermont's Uniform Assessment had two sections: a traditional multiple-choice exam, and four open-ended questions. Following is a summary of the results, with comparison to NAEP results nationwide.

Uniform Assessment: The Results

One purpose of the Uniform Assessment in mathematics is to compare the math performance of Vermont students to that of other students across the nation. The inclusion of test items from NAEP in Vermont's testing provides the basis for that comparison.

The National Assessment of Educational Progress is the only nationally representative, continuing assessment of what America's students know and can do in mathematics.

Multiple-Choice Section

At the fourth-grade level, the selection of NAEP multiple-choice items was limited to Numbers and Operations, and Measurement. All five content areas were represented by NAEP items at the eighth grade level.

Vermont fourth graders performed better than the national sample in all the areas that could be measured comparatively:

1992 NAEP Comparisons – Multiple-Choice

	Conceptual		Procedural		Problem Solving	
	VT	U.S.	VT	U.S.	VT	U.S.
Numbers and Operations						
Grade 4	66	56	80	68	47	43
Grade 8	68	66	48	49	47	48
Measurement						
Grade 4	*	*	51	46	*	*
Grade 8	68	64	72	72	43	39
Geometry						
Grade 8	56	57	*	*	58	52
Analysis, Statistics and Probability						
Grade 8	73	72	47	56	62	62
Algebra and Functions						
Grade 8	55	57	40	45	46	45
* Insufficient Data						

- *Conceptual Knowledge of Numbers and Operations:* 66 percent of Vermonters answered correctly, compared to 56 percent nationwide.
- *Procedural Knowledge of Numbers and Operations:* 80 percent answered correctly in Vermont, 68 percent nationwide.
- *Problem Solving in Numbers and Operations:* 47 percent answered correctly in Vermont, 43 percent nationwide.
- *Procedural Knowledge in Measurement:* 51 percent answered correctly in Vermont, 46 percent nationwide.

Vermont eighth graders outperformed their national counterparts in slightly less than half of the content areas in which there was sufficient data. They outperformed the nationwide sample in all three ability strands for *Measurement*. In *Geometry*, Vermont eighth graders scored above the national sample in problem solving and about the same in conceptual knowledge.

For *Analysis, Statistics and Probability*, Vermont eighth graders scored below the national sample in procedural knowledge, about the same in conceptual knowledge and problem-solving, and below the national sample in procedural knowledge.

In *Algebra and Functions*, Vermont eighth graders scored lower than the national sample in conceptual and procedural knowledge, and about the same in problem solving.

Open-Ended Section

Each Uniform Assessment also included two open-ended questions, for which students had to construct their own responses. The Open-Ended table provides a comparison of Vermont fourth and eighth graders to their national comparison groups.

Vermont fourth graders outperformed the national sample in six of the seven items. In most of these instances, the difference between Vermont students and the national sample was dramatic.

Similarly, Vermont eighth graders performed better than the national sample on all four items. Again, in several instances the Vermont performance was drastically better than the national.

Evaluating the Mathematics Assessment

As with writing, interviews with mathematics teachers on the assessment process yielded some very positive reviews, including these:

- More than half of the teachers said they were frequently more enthusiastic about teaching math.
- More than 80 percent said they had changed their opinion of students' mathematical abilities on the basis of students' portfolio work.
- About 25 percent reported that their low-ability students were frequently more successful as a result of using the portfolios.

Math teachers were concerned, however, that portfolios viewed out of a context that includes other measures of student performance might create misconceptions about student accomplishments.

Here are some comments that teachers made:

- "Some of my brightest students did not show interest, or do a good job, while some of my less able students did a tremendous job."
- "[The portfolios make it appear] that the students have mastery of skills that I don't feel they do. What's deceiving is that corrections were made and sometimes remade."

Sources: Vermont Department of Education
Advanced Systems for Measurement in Education
National Assessment of Educational Progress
RAND/National Center for Research on Evaluation,
Standards and Student Testing

NAEP Open-Ended Items

Grade 4	VT	U.S.
Numbers and Operations/Conceptual	21.5%	8%
Numbers and Operations/Problem Solving	57.1%	24%
Measurement/Procedural	45.4%	26%
Geometry/Conceptual	85.3%	61%
	68.1%	28%
Analysis, Statistics and Probability/Problem	65.5%	49%
Algebra and Functions/Procedural	42.2%	73%
Grade 8		
Numbers and Operations/Conceptual	38.5%	34%
Analysis, Statistics and Probability/Problem	82.1%	72%
Algebra and Functions/Procedural	48.7%	37%
	69.9%	51%

These tables summarize some of the teacher reactions to the mathematics Portfolio Assessment:

Frequency of Positive Effects

<i>Grade 4</i>	Rarely or Never	Occasionally	Often or Always
I am more enthusiastic about teaching math	15	29	56
Goals of math instruction are improved	10	33	57
Math is more closely linked to other subjects	14	41	45
Students' attitudes toward math improve	19	38	43
Students are learning more mathematics	14	35	51
Low-ability students are more successful	28	40	33

<i>Grade 8</i>	Rarely or Never	Occasionally	Often or Always
I am more enthusiastic about teaching math	11	38	51
Goals of math instruction are improved	14	57	30
Math is more closely linked to other subjects	11	46	43
Students' attitudes toward math improve	32	41	27
Students are learning more mathematics	14	51	35
Low-ability students are more successful	38	46	16

Change in Class Time Devoted to Mathematical Topics (% of Teachers)

<i>Grade 4</i>	Somewhat or Much Less	About the Same	Somewhat or Much More
Computation and algorithms	49	53	7
Estimation	8	55	37
Patterns/Relationships	5	46	48
Measurement/Geometry	15	57	27
Problem Solving Strategies	2	16	82

<i>Grade 8</i>	Somewhat or Much Less	About the Same	Somewhat or Much More
Computation and algorithms	31	66	3
Estimation	3	63	33
Patterns/Relationships	10	40	50
Measurement/Geometry	3	73	23
Problem Solving Strategies	0	23	77

School Climate and Student Equity

Today, issues of discrimination and equity are growing in our schools, as they are in our whole society. Vermont desires to create a climate that appreciates and celebrates diversity.

Vermonters are just beginning to recognize that student equity is not universal in our schools. Little or no attention has been paid to discrimination and its effects. Issues of discrimination by race, creed, color, national origin, limited English proficiency, gender, age, handicapping condition and/or disability, or sexual orientation have been virtually ignored.

The Equity Team at the Department of Education has adopted this mission statement:

The Equity Team assists educational communities and the Department of Education to ensure that these organizations provide and foster working and learning environments that are free from harassment and discrimination. We are dedicated to creating climates that recognize, affirm and appreciate diversity, equal opportunities, and equitable treatment for all.

Sexual harassment policy and procedures were sent to all superintendents and principals in September. Discrimination policy and procedures will also be sent out in future months covering racial, religious, handicapping disabilities, and sexual orientation discrimination. The Equity Team will be instrumental in implementing and enforcing Vermont State Board of Education Regulation §2140, "School Climate."

According to the 1990 U.S. Census:

- 3,215 Asians, including East Asians and Pacific Islanders, live in Vermont. Since 1980, the number of Asians has increased by 137.27 percent.
- 1,951 African-Americans live in Vermont. This represents an increase of 71.9 percent since 1980.
- The Native American population rose from 984 in 1980 to 1,696 in 1990, a 72.36 percent increase.
- The Hispanic population has increased 10.8 percent in the last decade, with a 1990 population of 3,661.
- There are approximately 72 languages and dialects spoken in Vermont.
- There are 33,123 people, or 5.9 percent, who claim French Canadian ancestry.
- Nearly one in 10 people is living below the poverty level.

Commonly accepted estimates are that one in every 10 Vermonters is gay, lesbian, or bisexual.

Is every student and teacher safe, respected and accepted as an equal member of the educational community?

Scholastic Aptitude Test (SAT) Scores

Statewide, scores rose in 1991-92. But our students are still scoring below the national level in math — and Vermont women are still scoring, on average, below men.

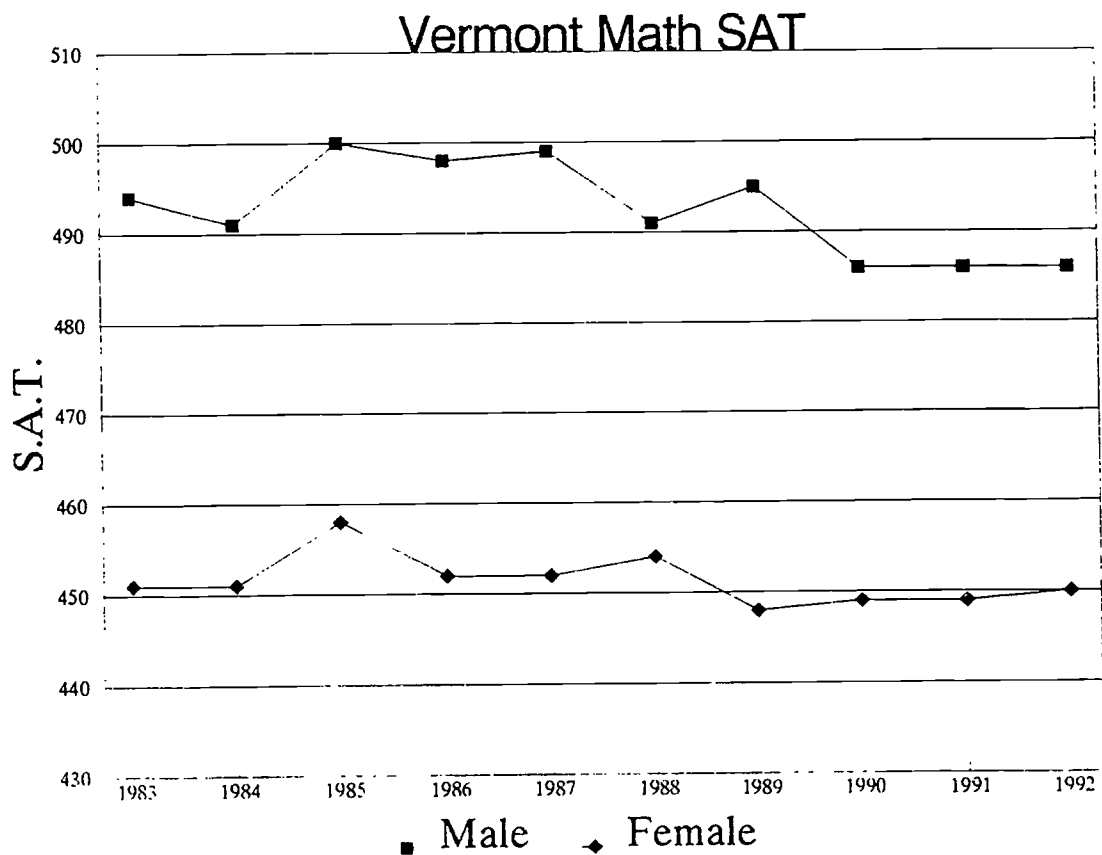
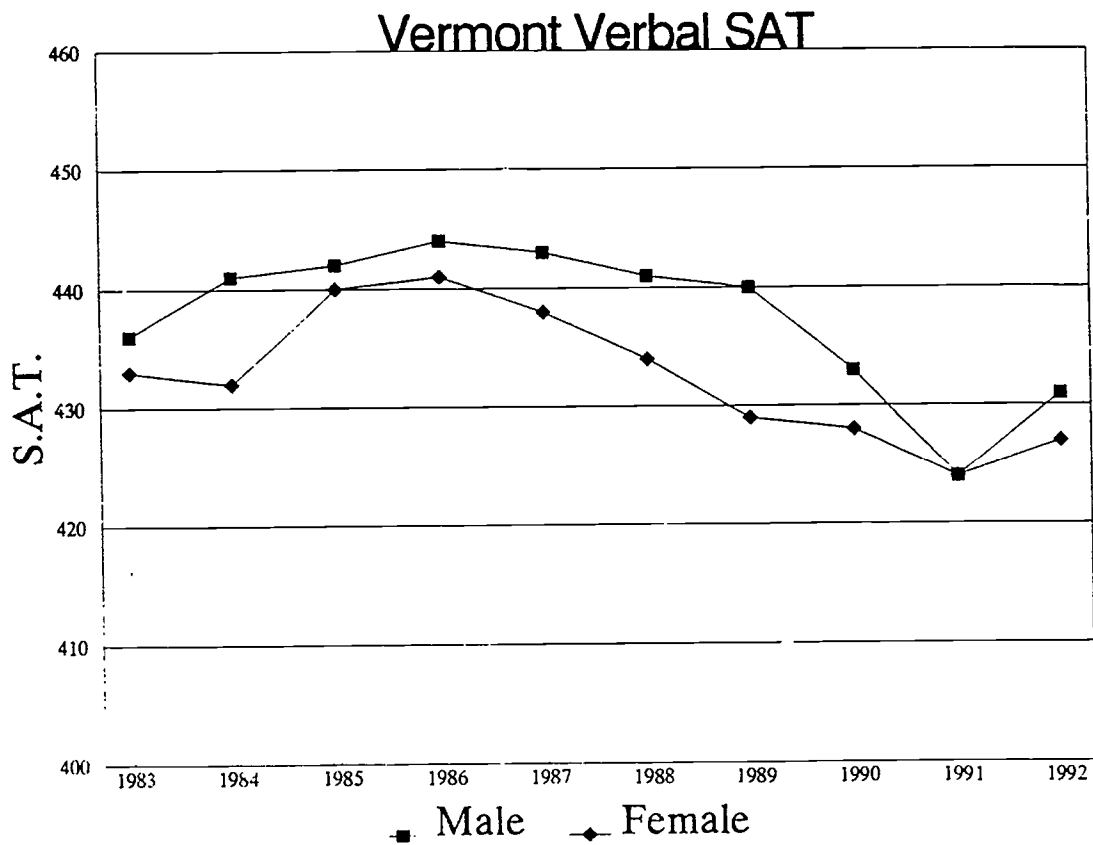
In 1991-92, Vermont SAT scores rose 5 points in verbal and 2 points in math. We still remain above the national average in verbal, and 8 points below the average in math. The math gap has remained constant. We have reversed our math scores' decline of the last several years, but have not yet recovered to the level of a few years ago.

The SAT is an aptitude test; it is not an indicator of achievement. It is not taken by all students, only by those who are planning to attend college.

There is still a disturbing disparity between male and female SAT scores in Vermont. In 1990-91, females and males finally earned the same average verbal score (427). This year the males earned a higher average score than females — 431 compared to 427.

In math, although females narrowed the gap to the smallest difference in the past 10 years, there is still a 36 point spread between the average male and female scores. The average score for males is 486, and for females is 450.

Source: College-Bound Seniors 1992: A Reference Guide. New England Regional Office, The College Board.



Source: College-Bound Seniors 1992: A Reference Guide. New England Regional Office, The College Board.

Achievement Test (AT) Scores

The portion of Vermont students who took Achievement Tests was higher than the national average. Students who took ATs scored higher on SATs.

Twenty-one percent of Vermonters who took the SAT took at least one Achievement Test, compared with 19 percent nationally. Fifteen percent of all Vermont graduates took ATs, almost twice the national average of 8 percent. The number of Vermont students who took at least one Achievement Test grew by 1.8 percent; the total number of ATs taken rose by 2.3 percent.

Students who took at least one AT earned SAT scores well above the state average in both verbal (520 compared to the state average of 429) and math (568

compared to the state average of 468).

The number of Vermont students taking both the SAT and Achievement Tests is far greater than the national average. In addition, 15 percent of Vermont graduates took at least one Achievement Test, almost twice the national percentage of 8 percent.

The state average for American History (536) was the highest recorded in the state over the past 10 years. The average for English Composition was up 3 points to 522; the state average for Mathematics Level 1 declined 3 points, to 551.

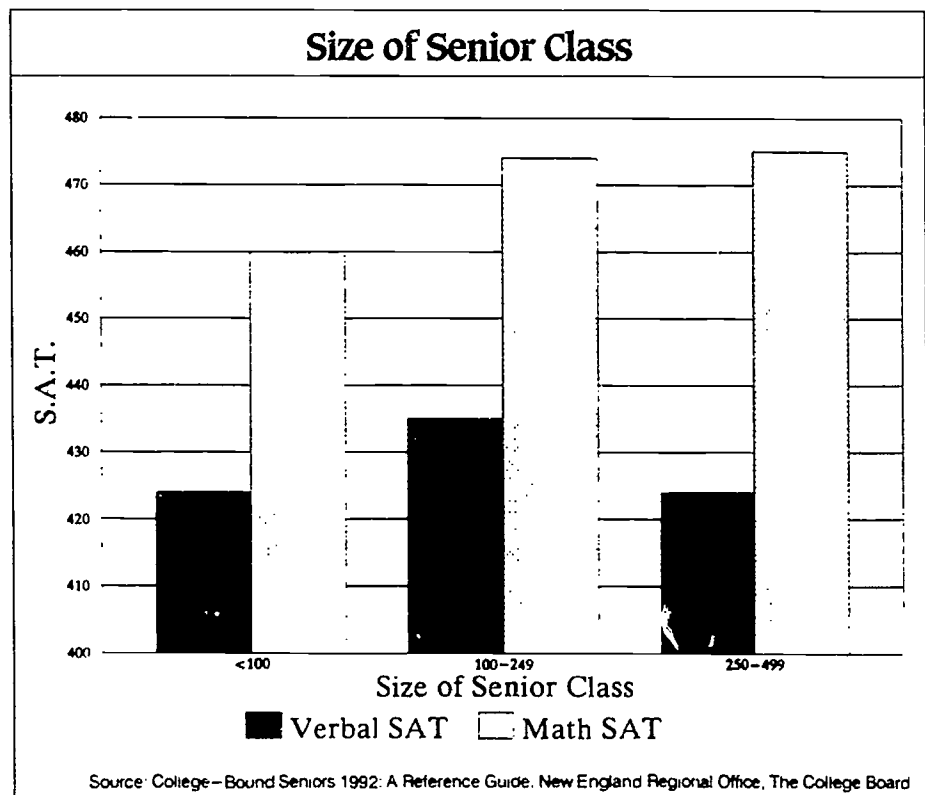
Source: College-Bound Seniors 1992.

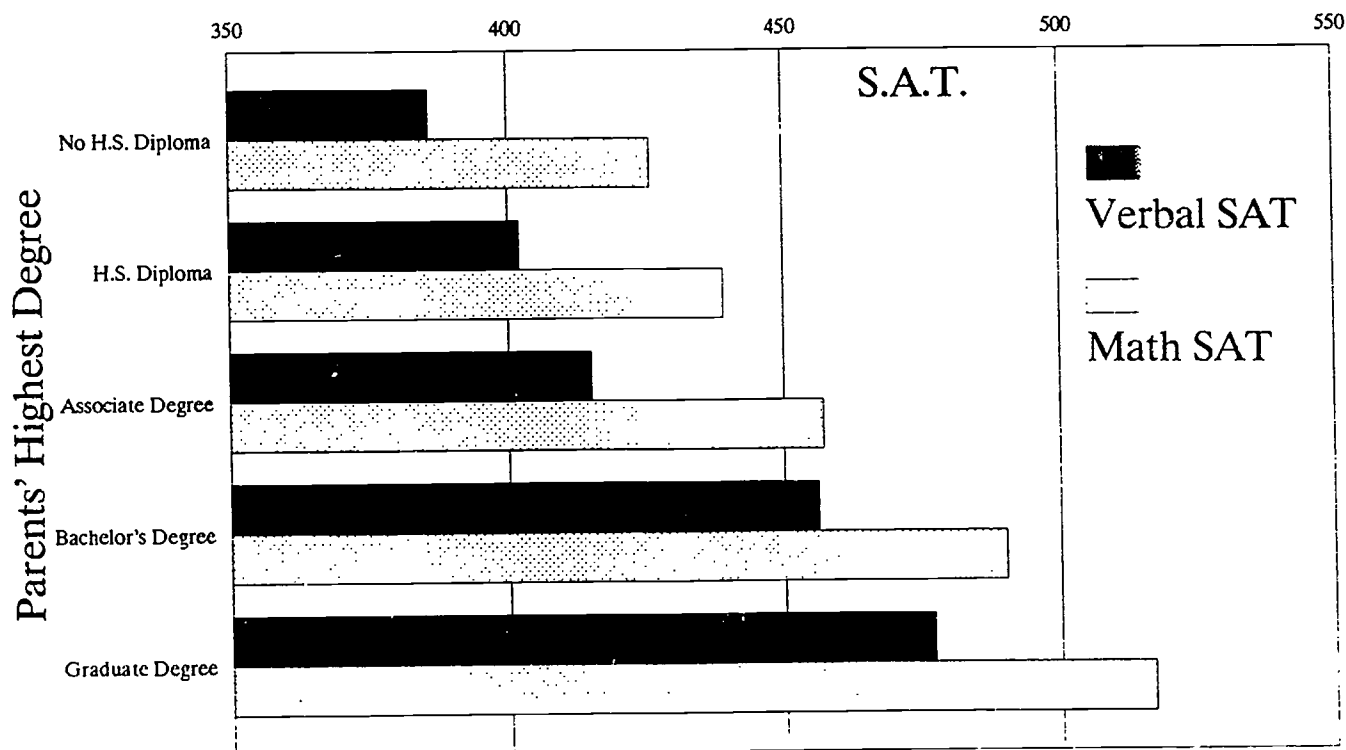
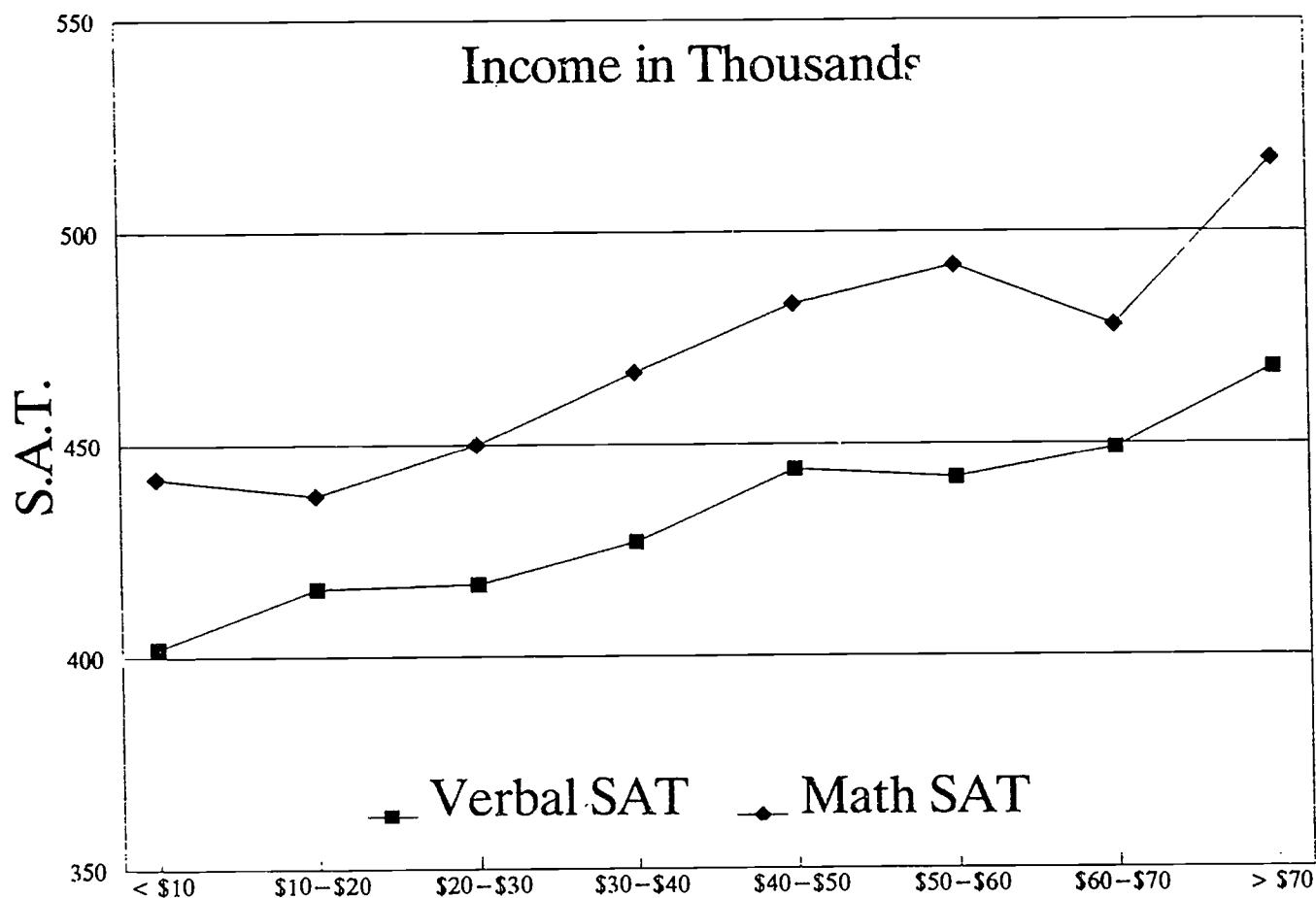
Demographic Information About Vermont Students Taking SATs

Parental education and income correlate strongly to SAT performance. Students from medium-sized senior classes scored best overall, compared to those from large and small classes.

- Eighty-three percent of the Vermont students who took the SATs in 1991-92 were in public schools, 4 percent in religiously affiliated schools, and 13 percent in independent schools.
- Students from the religiously affiliated schools scored highest in verbal, while students from independent schools scored highest in math.
- For those students whose first language learned was something other than English, the verbal scores were lowest and the math scores were highest.

Source: College-Bound Seniors 1992.





Source: College-Bound Seniors 1992: A Reference Guide, New England Regional Office, The College Board

Dropouts

In 1990, of 24,136 students in grades 9-12, 1,239 dropped out of school. Of all 19-year-olds in 1990, 17.5 percent had dropped out of school.

Source: Vermont Department of Education.

Do we understand why 17 percent of our young people drop out?

Have we talked with them? Have we listened?

How can we restructure our schools to respond to the needs of the dropouts?

Vermont Public School Withdrawals Grades 9-12, 1964-65 through 1990-91

School Year	Total Adjusted Enrollment**	Number of Withdrawals					Withdrawals as a Percentage of Adj. Enrollment
		9th	10th	11th	12th	Total	
1964-65	21,567	294	249	227	148	918	4.3%
1965-66	22,093	217	216	213	144	790	3.6%
1966-67	23,008	239	259	257	161	916	4.0%
1967-68	24,268	203	247	291	180	921	3.8%
1968-69	25,509	211	293	286	168	958	3.8%
1969-70	26,567	196	290	314	187	987	3.7%
1970-71	27,498	211	301	322	165	999	3.6%
1971-72	28,689	173	367	402	287	1,229	4.3%
1972-73	29,537	200	330	432	321	1,283	4.3%
1973-74	30,106	191	350	489	321	1,351	4.5%
1974-75	30,343	167	324	440	283	1,214	4.0%
1975-76	31,092	236	364	427	308	1,335	4.3%
1976-77	32,314	255	335	421	312	1,323	4.1%
1977-78	31,007	257	344	484	322	1,407	4.5%
1978-79	31,083	258	415	468	349	1,490	4.8%
1979-80	29,962	275	323	425	326	1,349	4.5%
1980-81	29,006	261	342	414	319	1,336	4.6%
1981-82	27,896	255	328	426	275	1,284	4.6%
1982-83	26,546	265	238	321	251	1,075	4.0%
1983-84	27,042	258	292	366	248	1,164	4.3%
1984-85	27,081	247	294	288	266	1,095	4.0%
1985-86	27,259	265	318	302	297	1,182	4.3%
1986-87	26,905	277	346	341	208	1,172	4.4%
1987-88	26,344	291	326	341	245	1,203	4.6%
1988-89	24,895	278	262	313	252	1,105	4.4%
1989-90	24,136	293	329	320	297	1,239	5.1%
1990-91	23,868	225	290	309	258	1,082	4.5%

* Does not include the 5 public schools not governed by school boards.

** Enrollment at the beginning of the school year adjusted for transfers and deaths.

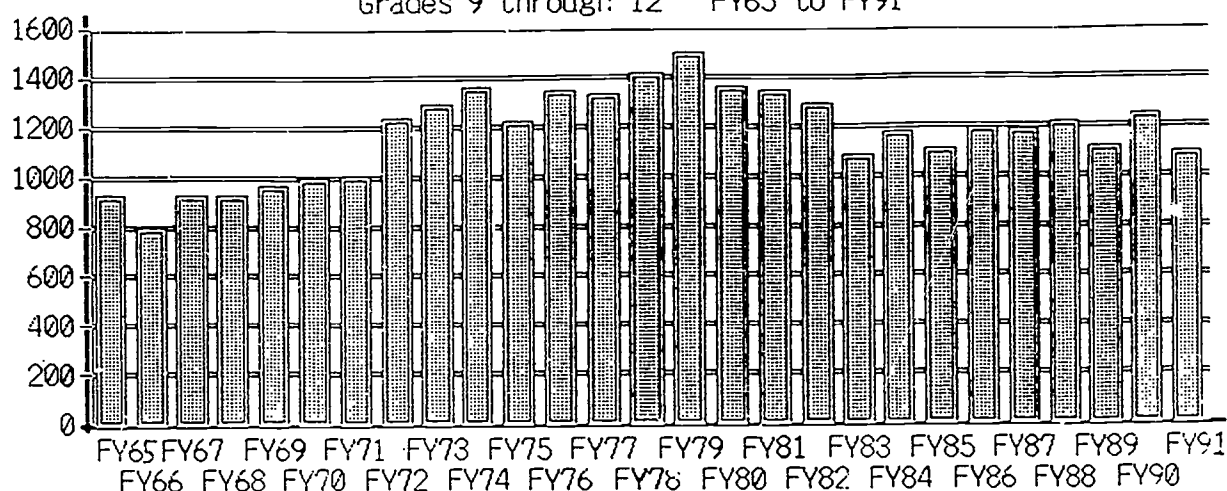
Source: The Annual Statistical Report Part 1 for FY65 through FY90.

The School Register Data Collection for FY91

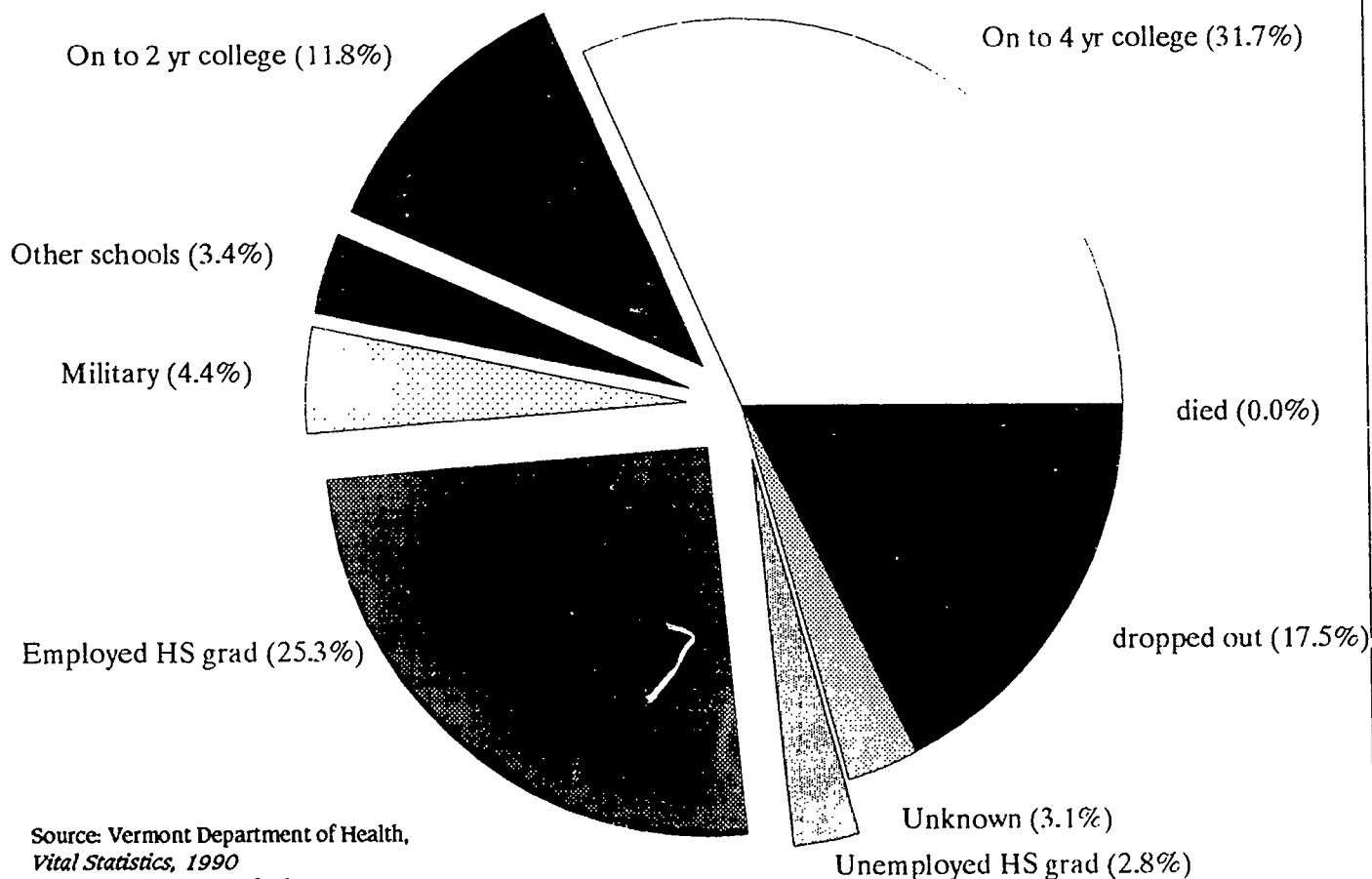
File: Lotus Data/Dropout.rft

Vermont Public School* Withdrawals

Grades 9 through 12 FY65 to FY91



Of 6,222 Nineteen-year-old Vermonters:



Source: Vermont Department of Health,
Vital Statistics, 1990
Vermont Department of Education,
Public School Withdrawals from
Grades 9 through 12, 1989-90

Community and School Profiles

A new study finds that parents' education, along with other factors, has an effect on whether students graduate and continue their schooling.

The Department of Education undertook a study this year that examined the relationship between parental education level and students' tendency to drop out or pursue post-secondary education.

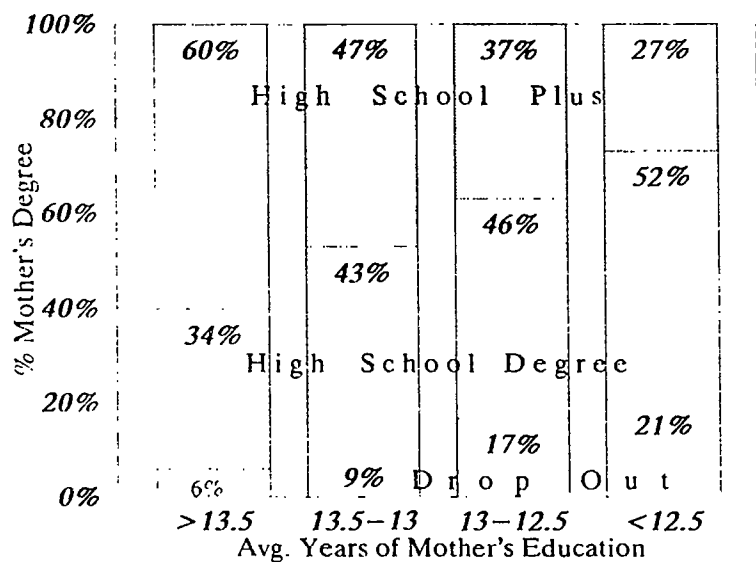
Here are some of its findings:

- Students tend to replicate the educational experience of their parents and their community.
- Among the influences on student completion and continuation that the study examined, the strongest is the mother's education.
- The second strongest factor found by the study is resident property ownership. More students graduate and continue their schooling when more residents in the community own the property they live in, and hence pay school taxes.
- The third-strongest factor is per-pupil spending. Higher spending correlates with higher student continuation and completion.

- However, the study found considerable variation among communities with similar backgrounds. This suggests there are other significant variables.

Can school-based restructuring offset the influences of community variables — so that more students graduate and continue their schooling, no matter what their background?

Community and School Profile of Mother's Education



	Category of Mother's Education (yrs)			
	> 13.5	13.5-13	13.0-12.5	<12.5
Income	24,776	20,698	18,284	18,034
% Fd Stamps	4.2%	7.2%	14.2%	14.7%
CE/ADM*	4,328	3,900	3,824	3,472
# Enrolled	7,755	6,480	14,594	5,296
SCCF:				
average	53%	51%	42%	38%
high	68%	72%	61%	51%
low	41%	37%	25%	21%
# schools	13	15	27	9

*ADM or enrollment weighted averages

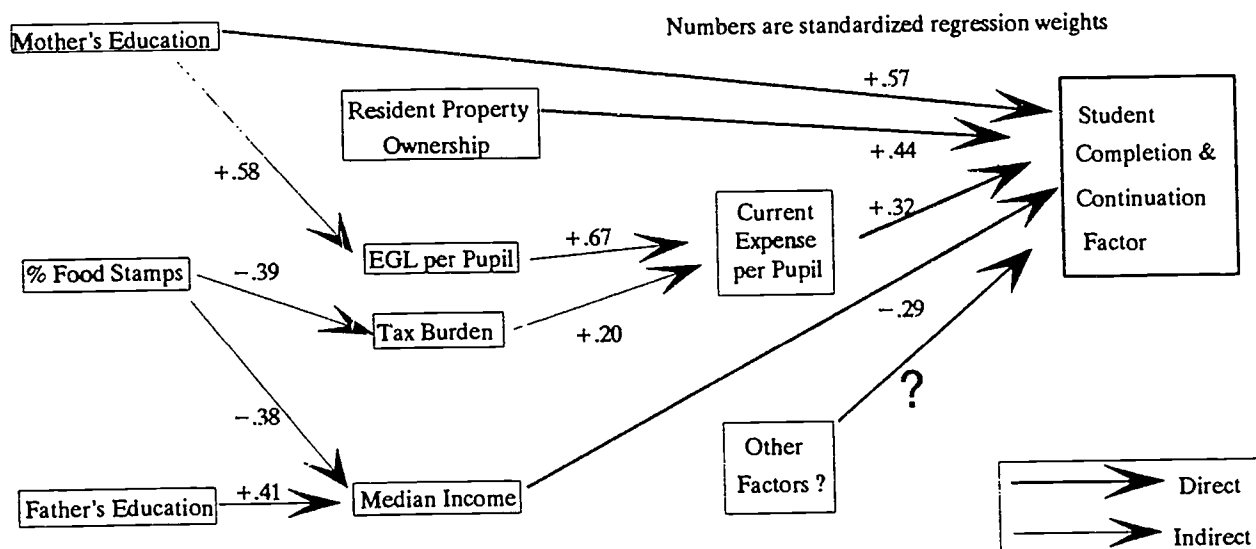
Path Analysis of Correlates with Student Completion & Continuation Factor

Parents

Community

School

Outcome



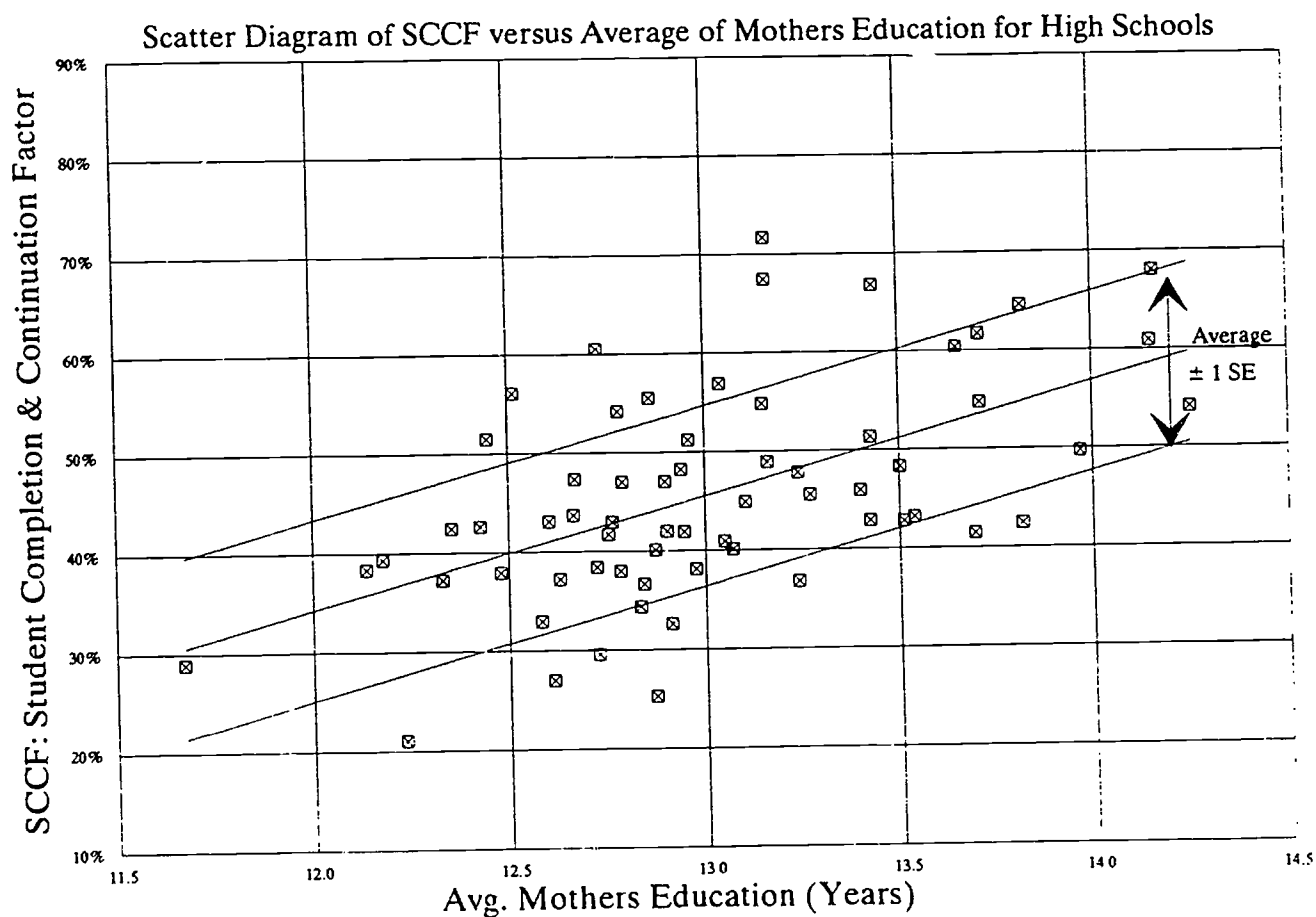
Variables Considered, but not entered via stepwise analysis:

% Mothers with <12 Yrs Educ.

Town vs. Union School
Elementary Schools

Student/teacher Ratio
HS Enrolment
Voc Center (y/n)

(Independent Schools are not included here because of incomplete data.)



Activities After High School

After growing for a decade, the percentage of graduates who continue their education has begun to decline.

After a decade of steady increases, Vermont has seen a decline in the percentage of graduates who *planned* to continue their education after high school, as well as in the percentage of seniors who *actually continued* their education.

In the class of 1990, 62.5 percent of seniors continued their education within six months after high school, compared to 63.9 percent of seniors in the class of 1988. Nationwide, 60.1 percent of students in the class of 1990 continued their education.

Nearly 13 percent of seniors who continued their education in the fall of 1990 indicated they would not return to school in the fall of 1991. Forty-two percent of those seniors cited affordability as the "most important" reason for their choice.

Affordability was also the biggest reason for those

graduates who did not pursue an education after high school. Nearly 32 percent of graduates who did not plan to continue their education in the fall of 1991 — and over 33 percent of graduates who delayed their education for one year — cited affordability as the most important reason.

Despite these declines and concerns, Vermont's 1990 continuation rate is still much higher than the 1978 rate of 49 percent. However, it appears that it is becoming more difficult for Vermont families to afford to send their children to college.

How can we help our students continue their education when the families don't have the economic resources?

Sources: Survey of Plans for Education and Careers: Vermont High School Class of 1990 Actual Activities After High School, Vermont Student Assistance Corporation.

The Condition of Education 1992, U.S. Department of Education.

Adult Basic Education

A growing use of small-group instruction, and of media technology, helped this program reach almost 6,000 Vermonters in 1992.

In Fiscal Year 1992, the Adult Basic Education (ABE) program served 5,977 adults. ABE serves students primarily through one-to-one tutoring in homes. This method will remain the foundation of the ABE program, since it ensures confidentiality and encourages those adults with few or no basic literacy skills to come forward when they may be reluctant or afraid to seek help.

However, over the years ABE has been offering more opportunities for small groups and classes in other locations. As a result, the percentage of students in groups has increased from 20 percent in 1990 to 31 percent in 1992; and the percentage of those receiving one-to-one tutoring has decreased from 72 percent in 1990 to 59 percent in 1992. The percentage of students seen in homes decreased from 61 percent in 1990 to 50 percent in 1992. Other locations where instruction may occur include learning centers, work sites, schools, and libraries.

ABE has increased its use of media and technology for instruction. Program tutors and students developed

and presented a Math and Science series over Vermont Interactive Television, reaching all sites. Video packets have been developed on a variety of topics for students to use, independently through the mail or with tutors. Computers in homes and learning centers are used increasingly to improve reading and writing skills. Students are producing their own books using desktop publishing. Radio reading programs were held in a number of counties.

Although most of the instruction is provided by paid staff, volunteers have increased by nearly 130 percent over last year. A total of 342 volunteers provided instructional, clerical, and organizational help for local programs.

Collaboration remains a vital component for ABE, both locally and statewide. In addition to the state agencies and employment and training offices, ABE also works with a variety of other organizations. The Vermont Council on the Humanities and community libraries continue to support "Connections" programs, in which adult new readers meet in libraries with scholars to discuss children's literature. Collaboration with businesses includes piloting an innovative approach to help businesspeople assess their educational needs and develop programs to meet those needs.

In addition, businesses such as Tivoly, General Electric, Cabot Creamery, and Stanley Tool held educational programs for employees in 1992. The Commercial Driver's License requirement brought in significant numbers of students who need assistance to pass the test and keep their job. The Sterns Center in Burlington

is collaborating on a grant to provide staff development in working with adults who have learning disabilities. The Success by Six initiative includes parent education and family literacy as one of its core principles.

Source: Vermont Department of Education

Technical Education

While high school participation rates vary widely, adult enrollments are growing fast. An effort called "Futures" helps many Vermonters reach for self-sufficiency.

In the 1990-91 school year, Vermont began assessing technical education enrollments and achievements in "A Blueprint for Restructuring Technical Education in Vermont."

The data developed in this effort will set benchmarks for restructuring. They include these findings:

- 64 high schools send students to regional tech-center programs. Forty percent of those high schools send 30 percent or more of their 11th and 12th graders; 20 percent of Vermont high schools send fewer than 10 percent of their 11th and 12th graders.
- 507 adults were enrolled in daytime programs.
- 4,697 adults were enrolled in evening programs.
- 1,807 students participated in youth groups.
- 3,371 secondary students were enrolled in technical centers. Of those students:
 - 1,081 are disadvantaged;
 - 26 are limited in English;
 - 531 are handicapped, and
 - 308 are learning job skills through work placement.
- Per-pupil costs at the 16 area technical centers range from \$2,081 to \$5,196 for a full year of half-day instruction.

A one-year follow up study of graduates who had completed technical programs in 1990 shows that:

- 32 percent are employed in work related to their school program;
- 30 percent are in post-secondary school programs;
- 24 percent are employed in work not related to their school program, and
- 14 percent are unemployed, incarcerated, or did not respond.

A three-year follow up study of graduates who had completed technical programs in 1988 shows that:

- 47.5 percent are employed in work related to their school program;
- 18.5 percent are in post-secondary programs;
- 26 percent are employed in jobs not related to their school program, and
- 8 percent are unemployed, incarcerated, or did not respond.

Since 1985, adult enrollments at Vermont regional technical education centers have been increasing by 10 percent per year.

In 1992, 92 high school students earned college credits through a technical education initiative called Tech-Connections, a partnership between secondary and post-secondary institutions.

"Futures" is a coordinated effort to provide workshops to Vermont's welfare recipients, single parents, and displaced homemakers to aid them in developing life plans and connecting with the educational and support agencies that can help them attain self-sufficiency. Futures provided workshops to 365 people in the 1990-91 school year.

Source: Vermont Department of Education

The Vermont Common Core of Learning

Vermonters across the state are working to build a consensus on learning for the 21st Century.

In more than 40 community focus forums over the past two years, more than 2,000 Vermonters have joined in a statewide conversation. Their challenge has been to answer this question:

What knowledge, skills, and qualities will learners need to succeed in the 21st Century?

The answers have been considered and refined by top Vermont teachers and a Department of Education team. Correlated with up-to-date research on student learning and school success, 8,000 copies of the results will be circulated in December as the second working draft of *The Vermont Common Core of Learning: What All Learners Need to Know*.

In the forums, Vermonters said schools must move beyond traditional disciplines, weaving together knowledge, skills and experience to reach a new standard of learning success — very high skills for *everyone*. Those urgings tallied closely with the findings of current research into how schools can work at the highest level for all students.

About 5,000 copies of the Common Core's first working draft were circulated around the state in spring and summer of 1992. Seventy-five copies of a special video on the project went out as well. The first draft was brought to eight School Development Institutes last summer, and was also the focus of a Vermont NEA

group discussion. Educators and others urged that the second draft be both simplified and more clearly connected to substance — to the subject matter of education.

As a result, the Common Core's second draft centers on four new groupings of essential results, called *vital skills*: Communication, Reasoning and Problem Solving, Personal Development, and Social Responsibility. These vital skills are linked closely to the critical *fields of knowledge* that learners must learn about and be able to use. Connected as well to sample paths for community learning standards and assessment, the draft Common Core aims Vermont education toward new, highly productive structures and strategies.

Educators and others all over Vermont are being asked to analyze and respond to the Common Core second draft. Once this report is finished, *What All Learners Need to Know* will be followed by additional pieces, each one building the next part of the Common Core process. Those follow-up projects and their reports will look at these subjects:

- Insights on learning for successful education.
- Vermont examples of teaching and learning for the 21st Century.
- Helping communities make this happen.
- Learning systems that work: successful ways to organize education.

Goal 2:

*Vermonters will restructure their schools
to support very high performance for all students.*

- New roles, new partnerships, new stresses, and new needs — all are cited by principals whose schools are restructuring.
- Fourteen of Vermont's restructuring schools report more progress in some areas — especially those that involve crossing traditional learning boundaries — than in others.
- Vermont has the nation's highest percentage of special-education students served in the regular classroom, yet remains among the five states reporting the highest usage of residential placements.
- Vermont has begun an effort to review regulations and cut teachers' paperwork in special education.
- Vermont has joined a focused effort to support "break the mold" schools.
- Aided by a major grant, Vermont will work for far-reaching improvements in math, science, and technology education.
- Since the early 1980's, the amounts of local, state, and federal money spent on Vermont education have all increased. Local spending has grown the most.
- Vermont's current "Foundation" formula for state aid to education is showing some success at easing district-to-district inequities.

*How can we assure that all our schools are ready
to meet the challenges of the 21st Century?*

Restructuring Survey of Vermont Principals

New roles, new partnerships, new stresses, and new needs — all are cited by principals whose schools are restructuring.

In May 1992, 26 Vermont principals, whose schools represent a cross-section of schools at various stages of the restructuring process, were surveyed by phone about six aspects of that process over the past two years.

Here are the questions, and summaries of the principals' answers:

1. What in the daily experiences of children is changed?

The most frequent response was *integrated, interdisciplinary and theme-related curriculum*. *Cooperative learning* was a close second response. Other responses included:

- Team teaching;
- More, diverse extracurricular activities;
- Changes in grouping of children and scheduling of activities;
- Implementation of many specific programs, and
- Curriculum changes.

One high school principal said that changes for students in his school have been "explosive." As a result, he said, "[the need for] discipline has diminished, attendance increased, and vandalism has been extinguished."

2a. What have you found to be most effective in helping teachers to work with students who are experiencing learning difficulties?

Teaming among teachers was the most prevalent response. Other helpful techniques include:

- Workshops and training;
- Instructional Support Teams;
- Inclusion of all students and the concept of "developmentally ready as opposed to developmentally delayed";
- Smaller, more flexible grouping of children;
- Flexible scheduling;

- Math and reading labs;
- PIERS (Providing Intensive Early Reading Support) and CIRC (Cooperative Integrated Reading and Composition) reading programs, and
- Partnerships with parents.

One principal mentioned that teachers perceived Act 230 as a barrier to getting services to students.

2b. What training is needed?

The most frequent need wasn't training per se, but *time* for planning, training and meeting.

Specific needs include training for:

- Working with the emotionally disturbed;
- Act 230;
- Interactive skills;
- Assessment and development of individual programs, including objectives;
- Commitment to inclusion of all children in the classroom, and
- Learning theory and developmental learning.

3. What's changed about the teaching/learning experience?

This question drew three primary responses. Those are: an increased emphasis on interdisciplinary units; collaboration among students, and more collaboration among teachers.

4. What is changed in the daily life of teachers?

The two primary responses were: the positive, exciting experiences for teachers resulting primarily from the teaming approach; and the resulting increase in work load and related stress.

5. What is changed about the leadership, management, and daily operation of your school?

The most prevalent response was a change in management models — all of which involved some variation on a more collaborative, less authoritarian system. Fifteen principals described their system as having changed to a collaborative model. Ten principals described themselves as facilitators, supporters, and resource persons.

6. What type of partnerships are being built with parents, businesses, and community agencies?

The responses to this question were extensive and showed a prevailing enthusiasm among the principals. They cited an impressive quantity and variety of partnerships – and their own commitment to developing these partnerships was evident. Only one principal indicated that no new efforts were being made in this area.

Partnerships with Business:

- Monitoring/shadowing/apprenticeship programs with employers.
- Donations of goods and services, including funding for the JARE (Drug Abuse Resistance Education) program and food provided for the Healthy Snack Program.
- Relationships with the Chamber of Commerce.
- A School-Business Directory listing the resources each might access from the other.
- Transcript programs, whereby seniors have their transcripts available for job interviews.

Partnerships with Community Agencies:

- District committees that include representatives of Vermont Social and Rehabilitation Services, Human Services and Mental Health, and counseling agencies.
- Community or focus forums.
- Bringing in community volunteers, including:
 - community experts for discussions during AIDS Awareness Week;
 - assemblies for cultural awareness;

- Vermont Council on the Arts volunteers;

- RSVP (Retired Senior Volunteer Program) and other elder volunteers to work one-to-one with children, and

- drug and alcohol program representatives.

- Students are volunteering in their communities, and
- One high school is developing a program, "Graduation Challenge," which will become a requirement for graduation. Seniors will work 40 hours with a community mentor, and they will write a paper and present a speech to be evaluated by a panel from the community.

Partnerships with Parents:

"This place is swarming with parents," one principal commented.

The principals described these effects:

- Parents involved on most advisory, study, and planning groups;
- Monthly parent education groups meeting on topics pertinent to adolescents;
- More communication with parents, and
- More special events, such as math, science, and art fairs, more frequent parent nights at the high school level, authors' teas where elementary children read their own writing, and an evening of sharing family traditions.

Source: Center for Rural Studies, College of Agriculture and Life Sciences, University of Vermont

Reinventing Vermont Schools Survey

Fourteen of Vermont's restructuring schools report more progress in some areas — especially those that involve crossing traditional learning boundaries — than in others.

Since 1990, 14 Vermont schools have received grants through the Reinventing Schools Initiative to help them restructure their approaches to teaching, learning, and administration. In May 1992, the 14 schools were surveyed to assess their progress in restructuring as it affects student experiences, the professional life of teachers, the leadership, management, and governance of the school, and coordination with community services.

The survey was adapted from a questionnaire by the Center on Organization and Restructuring of Schools at the University of Wisconsin-Madison. At the Vermont schools, the survey found significant progress in certain areas of local educational changes, with a fairly high level of agreement on that progress among the 14 schools.

The areas of progress were these:

- Heterogeneous grouping of students;
- Accommodating diverse learning styles;
- Increased teacher involvement in collegial planning;

- Teamed instruction;
- Teachers' involvement in their own professional development, and
- Stronger parent/teacher relationships.

In several other areas, progress was less noticeable. These included:

- Student involvement in planning their own work;
- Time for teacher reflection and peer observation;
- Financial rewards or incentives linked to outcomes, and
- Formal linkages with local employers and adult education programs.

In many cases, the survey also found significant differences in the perspectives of the teachers, administrators, and others who responded. This may, in part, reflect that teachers do not meet with all other teachers on a regular basis, nor with some of the other respondents. Administrators may have more chance to observe and reflect on the whole school.

The discrepancies do suggest that overall, better communication may lead to a stronger shared understanding of progress in the local change process.

Reforming Special Education

Vermont has the nation's highest percentage of students served in the regular classroom — yet remains among the five states reporting the highest usage of residential placements. Vermont has begun an effort to review regulations and cut teachers' paperwork.

Nationally the 1990-91 school year saw a 2.8 percent increase in students served by special education. This was the largest increase since passage of the Individuals with Disabilities Education Act in 1975, and continues a trend of annual increase — both in number and percentage. This contrasts dramatically with Vermont's 6.5 percent decrease in students served by special education in 1989-90, followed by a 6.7 percent decrease in 1990-91.

At 10.9 percent of the student population, Vermont's special education enrollment is still above the national average of 9.9 percent.

In an effort to maximize services to students, Vermont has begun reviewing special education regulations and paperwork. Options to reduce the time teachers spend on paperwork are being piloted.

Vermont has the highest percentage of students served in the regular classroom, with 81.49 percent reported. Only three other states reported more than 60 percent;

the national average was 31.49 percent.

Vermont is, at 8.31 percent, one of just three states reporting that fewer than 10 percent of its students served were in special classes. The national average was 24.88 percent.

The range of residential placements is much more narrow — but Vermont at 1.73 percent is still among the five states reporting the highest use of residential placements. The national average is .83 percent. In the last year, however, Vermont has seen a decrease from 207 to 167 students in residential placements.

Vermont has seen a decrease in the number of Essential Early Education (EEE) students in the past two years, in spite of a mandate to serve all eligible 3-5-year-olds.

Are the students who need classroom supports being adequately served under Act 230?

Why are EEE counts down when its mandate is to serve all 3-5-year-olds who are eligible for special education?

Are alternatives to residential placements proving effective?

Source: Vermont Department of Education

New American Schools

Vermont has joined a focused effort to support "break the mold" schools.

As part of the National Alliance for Restructuring Education, Vermont was one of 11 winners of a highly competitive New American Schools grant this year.

This \$286,000-per-year grant will enable Vermont to focus more concentrated efforts on five tasks that will create a statewide system to support "break the mold schools." Three schools and districts — Folsom Education and Community Center (North Hero), Cabot School, and the Springfield School District — have been selected this year to participate in the NAS program. Twelve additional schools will participate in year two; 66 more schools will join the project in its third year.

The key tasks are these:

- Defining the student outcomes that are wanted, and creating good measures of progress toward those.
- Connecting schools to the curriculum and instructional

resources they need to perform to high standards.

- Improving the planning, financing, and delivery of health and human services to more effectively support student learning.
- Adapting for education the principles of the total quality movement as they have evolved recently in the best American business firms.
- Identifying those strategies that will foster sustained public support for world-class student performance, and the revolutionary changes in policy and practice needed to produce that performance.

Teams from Vermont's three "Year One" school teams will visit 25 master schools around the country. After the first year, these three schools will open their doors to teams from the second group of schools — and the same process will be repeated for successive years.

Source: Vermont Department of Education

National Science Foundation Grant

Aided by a major grant, Vermont will work for far-reaching improvements in math, science, and technology education.

Vermont won a \$10 million National Science Foundation grant this year, one of only 11 states to win grants in the nation. This is to be matched by another \$8.7 million in cash and in-kind contributions.

The award will build on educational reform efforts already in place. A new non-profit organization, The Vermont Institute for Science, Mathematics and Technology, has been established to carry out the five-year math, science, and technology initiative.

The Institute is pursuing sweeping improvements in these areas, with this set of interlocking goals:

- Developing a statewide science, math, and technology curriculum framework;
- Pre-Service Teacher Preparation to recruit and prepare highly effective teachers;
- A professional development program that enables

current teachers to master content and teaching methods and become highly successful teachers;

- Building on Vermont's student portfolio assessment program to develop integrated strategies, and establish a data collection and reporting system;
- Developing and supporting new school structures that promote higher student performance in math, science, and technology;
- Providing appropriate materials and technologies to schools;
- Expanding business and community involvement;
- Expanding opportunities for females, minorities, low-income, and rural students to pursue opportunities in math, science, and technology; and
- Pursuing additional grants to permanently strengthen math, science, and technology education in Vermont.

Source: Vermont Department of Education

Revenue and Expenditure History

Since the early 1980's, the amounts of local, state, and federal money spent on Vermont education have all increased. Local spending has grown the most.

Vermont reports to the federal government a large amount of education-related fiscal and other information. In turn, the annual statistical report given to the state by local education agencies provides the basis for many sorts of statistical analyses and policy decisions.

These statistical insights are among those provided in the current reports:

- The accumulated percent increase in revenues and expenditures since the 1982-83 school year has far exceeded the consumer price index.
- Local tax revenues devoted to education have increased 148 percent since fiscal year 1983 — from over \$163 million in FY83 to more than \$405 million in FY91.
- Federal revenues provided for Vermont education have increased 97 percent in the same time period —

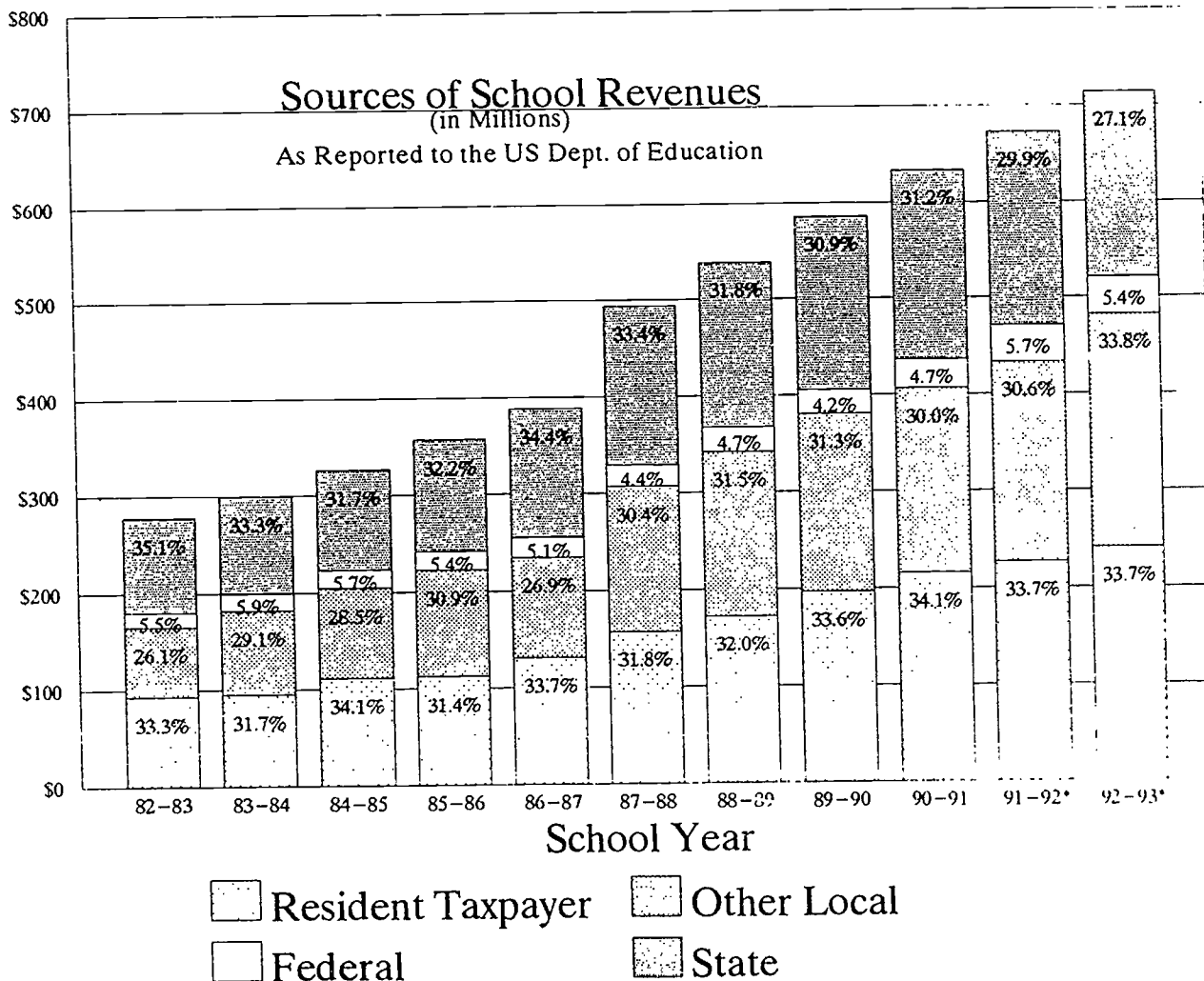
from \$15.3 million in FY83 to \$30.1 million in FY91.

- State revenues spent on education have increased by 102 percent — from \$97.6 million in FY83 to \$197.3 million in FY91.
- The current expense (federally defined as regular education, direct instruction and support services paid by local, state, and federal non-restricted funds) has risen from \$267.5 million in FY83 to \$597.8 million in FY91, for an increase of 123 percent over the 1983 level.
- During this same period, total public school enrollment in Vermont increased just 4.6 percent, and the consumer price index has increased by less than 40 percent.
- The state's share of all revenues spent on Vermont education has decreased from the 33-35 percent range, in the early to mid-1980s, to 31.2 percent in FY91. It is currently estimated to have dropped to 27 percent in FY92.

Source: Vermont Department of Education

(\$ in 1000's)	REVENUES					SHARE				Current Expense	Vermont Enrollment
	STATE	FEDERAL	LOCAL		TOTAL	STATE	FEDERAL	LOCAL			
			Resident Taxpayer	Non-resident & OTHER				Resident Taxpayer	Non-resident & OTHER		
82-83	97,556	15,305	92,676	72,521	278,058	35.1%	5.5%	33.3%	26.1%	267,530	91,510
83-84	99,686	17,707	94,786	87,257	299,436	33.3%	5.9%	31.7%	29.1%	290,206	90,416
84-85	103,624	18,570	111,413	93,227	326,834	31.7%	5.7%	34.1%	28.5%	313,026	90,089
85-86	115,042	19,342	112,039	110,421	356,844	32.2%	5.4%	31.4%	30.9%	346,164	90,157
86-87	133,284	19,738	130,760	104,230	388,012	34.4%	5.1%	33.7%	26.9%	378,264	91,720
87-88	165,006	21,806	156,961	150,101	493,874	33.4%	4.4%	31.8%	30.4%	456,992	92,755
88-89	171,522	25,317	172,359	169,536	538,734	31.8%	4.7%	32.0%	31.5%	485,226	93,381
89-90	181,330	24,464	196,712	183,528	586,034	30.9%	4.2%	33.6%	31.3%	546,901	94,779
90-91	197,288	30,083	215,941	190,032	633,344	31.2%	4.7%	34.1%	30.0%	597,832	95,758
91-92*	201,005	38,491	226,736	205,746	671,978	29.9%	5.7%	33.7%	30.6%	634,300	97,137
92-93*	193,236	38,630	240,794	240,981	713,641	27.1%	5.4%	33.7%	33.8%	673,626	

* estimated % increase if 6.1% in fy92, and 6.2% in fy93



Source: VT Department of Taxes, Property Valuation & Review. U.S. Department of Education, National Center for Education Statistics, Common Core of Data

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Equity in Collecting & Distributing State Aid

Vermont's current "Foundation" formula for state aid to education is showing some success at easing district-to-district inequities.

The two most important issues that are considered in determining whether the school finance system is working are:

1. Is there student equity?
2. Is there taxpayer equity?

Equity does not mean absolute equality, but the assurance that the differences are not extreme or detrimental.

Without the equalizing effect of state aid to education, taxpayer equity and student equity are at odds with each other. That is, towns with poorer tax bases — and generally poorer citizens — have higher taxes, but less to spend per student; richer towns have both lower taxes and more to spend per student.

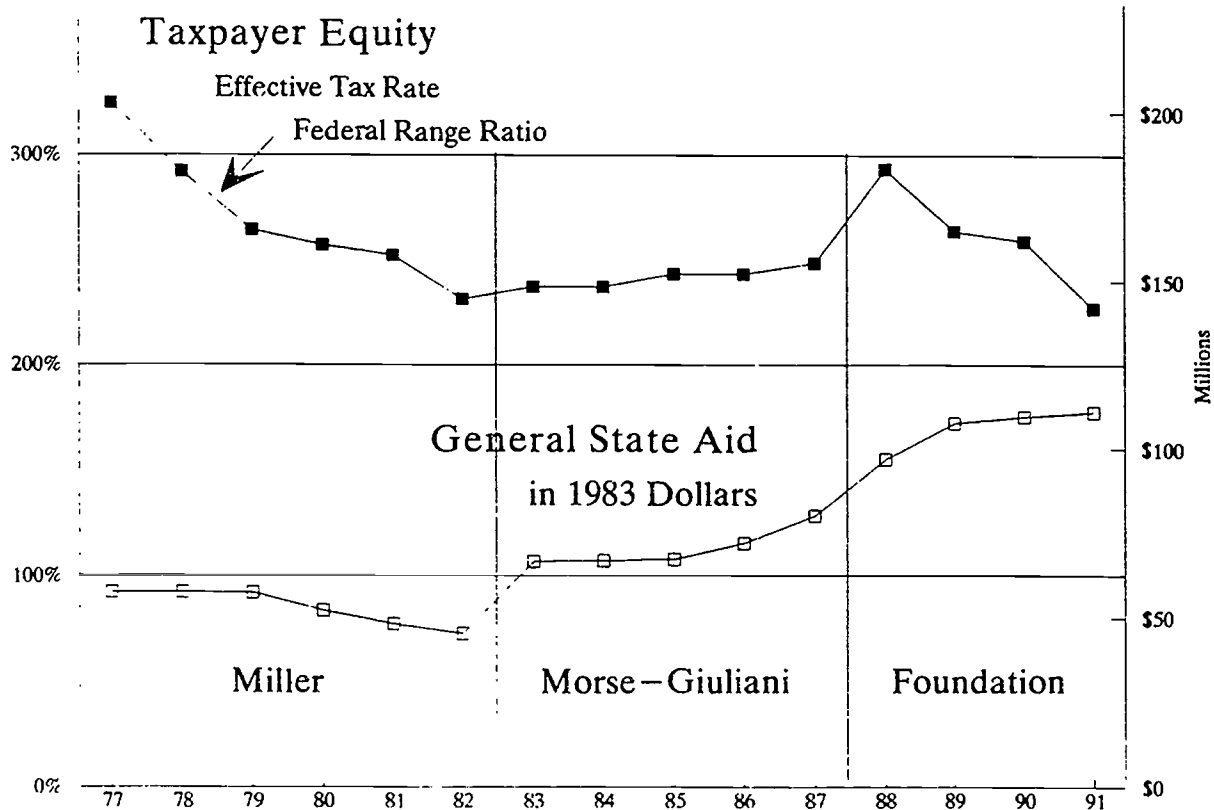
State aid is supposed to ease both taxpayer and student inequities. The challenge has been to distribute it fairly.

Since 1968, Vermont has distributed state aid to education according to three different formulas: the Miller, the Morse-Giuliani, and the Foundation. All tried to equalize districts based on inequalities in tax base. The first two gave out aid depending on how much was spent locally, while the latest — the Foundation — allots aid based on the typical cost of a so-called "foundation" education.

Student equity was gradually getting worse under the Miller formula; it leveled off under Morse-Giuliani, and has showed some improvement with the Foundation plan. Unfortunately, student equity has yet to improve back to the Fiscal Year 1979 level.

Taxpayer equity was gradually getting better under the Miller formula — apparently at the expense of student equity. It leveled off under Morse-Giuliani, and has again shown some improvement under the Foundation plan.

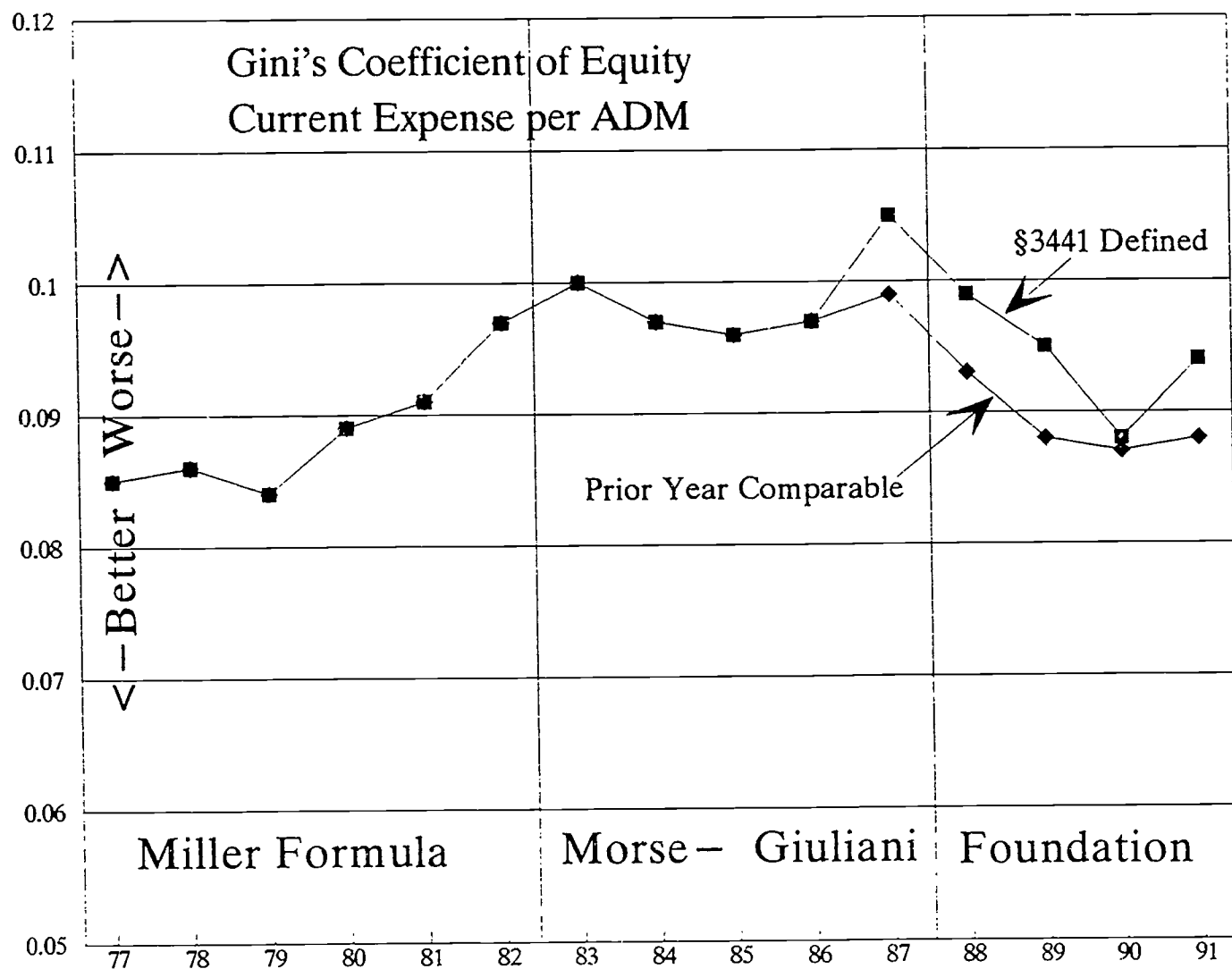
Source: Vermont Department of Education



Effective Tax Rate: The ratio of local school taxes assessed to equalized grand list.

Federal Range Ratio: The difference between the ninety-fifth and the fifth percentile divided by the fifth percentile.

Source: Vermont Department of Education, 1992.



3441 Defined- Title 16, Section 3441: Current expense, excluding transportation and special education costs.

Source: Vermont Department of Education, 1992.

Goal 3:

*Vermont will attract, support, and develop
the most effective teachers and school leaders
in the nation.*

- School restructuring, collaborative planning, and new approaches to teaching mathematics and the arts were the focus of widely attended summer programs.
- Just over 71 percent of salaries and benefits are devoted to direct instructional services.
- Local and regional standards boards, now in place across the state, are working closely with teachers and requiring them to build long-range professional development goals.
- Having risen steadily since 1986, Vermont teacher salaries now rank 21st in the nation.

Do schools give enough support to teachers as learners?

Is higher education preparing new teachers to succeed in transforming schools?

How do we measure the "most effective" teachers and school leaders?

With so little money to spend in these times, can we offer any other incentives to attract the best teachers and administrators in the nation?

Professional Development Opportunities

School restructuring, collaborative planning, and new approaches to teaching mathematics and the arts were the focus of widely attended summer programs.

School Development Institutes

This summer, 780 people in school-based teams graduated from School Development Institutes, co-sponsored by the University of Vermont and the Department of Education at 11 sites around Vermont. Sixty Restructuring Corps volunteers were on hand to assist with the training; 200 people, primarily from Vermont, presented workshops, and 30 staff members assisted on various aspects of the institutes.

Summer Mathematics Institutes

The Department of Education sponsored six week-long institutes related to the use of mathematics portfolios during the summer, all of which were to include follow-up sessions in the fall.

These institutes were all planned and largely conducted by Vermont teachers. The first, supported by a grant from the Windham Foundation, served 80 teachers who had participated in a previous portfolio institute. The focus was on the five instructional opportunities identified in the portfolio criteria: use of manipulatives, interdisciplinary work, use of technology, real-world applications, and cooperative learning.

During July, four institutes were held at different locations around the state, with over 100 teachers participating. Focusing on the use of portfolios for instruction and assessment, these institutes emphasized problem solving, mathematical communication, and the development and use of appropriate student tasks.

In August an institute drew 40 high school teachers, who are now piloting the use of portfolios in a wide variety of grade 9-12 classes. Evaluations from participants at all of these institutes were very positive, with high praise for the teachers who had designed and presented the activities.

Summer Arts Institute

This summer more than 30 Vermont teachers attended a week-long Arts Institute, sponsored by the Vermont Council on the Arts and the Vermont Department of Education. The major goals of the course were to:

- Introduce participants to a conceptual framework for restructuring the study of art;
- Engage participants in a rigorous investigation of

principles and concepts, and

- Inform participants about learning outcomes, instructional methods, and assessment strategies.

UVM Summer Institutes

More than 300 people participated in two University of Vermont summer institutes that focused on a collaborative planning process. School district teams developed action plans whose goals ranged from implementing an integrated curriculum to serving, within the school program, a student with intensive needs.

Summer Institute Implementation Grants

To assist in their implementation plans, a total of more than \$50,000 was awarded to school district teams participating in School Development or UVM Summer Institutes.

The Mountainside Wellness Conference

This year's conference drew 142 participants from school-based teams, 55 presenters, and 27 planning team members from schools, voluntary health promotion organizations, and state agencies.

The Vermont School Boards Association sponsors training for school board members throughout the year. In the school year 1991-92, the Association was responsible for the following training:

- Annual meeting: 150 participants.
- New member workshops: 80 participants.
- Three interactive TV conferences: 50 participants; the show was videotaped, and many other board members have requested it.
- UVM Extension Service, municipal officer management seminar: 180 participants.

Workshops at these sessions covered:

- policy development;
- planning and goal setting;
- board roles and responsibilities;
- forming partnerships with business and parents, and
- board self-evaluation retreats.

The Vermont Headmasters' Association continued its professional development program around the topics of restructuring and change with the following programs, presented during 1991-92:

- A VHA Belief Statement on Change;
- Principals' Convocation on Bringing About Change;
- Joint VHA/State Board of Education Meeting;

- Joint VHA/VT ASCD Conference: All Children Ready to Learn, and
- VHA Curriculum Conference on Technology.

Sources: Vermont Department of Education
Vermont School Boards Association
Vermont Headmasters' Association

Staffing Report for the 1991-92 School Year

Just over 71 percent of salaries and benefits are devoted to direct instructional services.

Just over 65 percent of full-time equivalent (FTE) staff positions in schools and supervisory offices are involved in direct instructional services, including teachers (50.5 percent) and teaching aides (14.7 percent).

Of the salaries and benefits cost, 71.5 percent goes to direct instructional services, including teachers and teaching aides.

General and school administration makes up 2 percent and 5.8 percent, respectively, of the FTEs statewide in schools and supervisory offices.

General and school administration makes up 2.7 percent and 7.2 percent, respectively, of the salaries and benefits cost statewide in schools and supervisory offices.

The average cost in salaries and benefits per FTE are ranked as follows:

- General Administration, \$41,361 per FTE;
- Student Support (social work, guidance, nurses, etc.), \$38,384 per FTE;
- School Administration, \$37,949 per FTE;
- Instruction (teachers and aides), \$33,646 per FTE.

Both the percent of all FTEs to teachers and the cost per

direct instruction FTE is strongly related to the total money available for salaries and benefits. As more money is spent on teaching aides, food, transportation, and maintenance staff, the percent of the staff that is teachers decreases. When more money is spent overall, salaries and benefits for instructional staff are higher.

The state median student-to-teacher ratio (student FTE divided by teacher FTE) is 15.1; the mean number of student FTE per teacher FTE is 14.8.

There is a large difference between the highest and lowest student-teacher ratio.

The student-teacher ratio (STR) varies according to grade, with STR for kindergarten having a median of 15.0, reaching a peak at fifth grade of 17.4, and declining to a low of 12.0 at 11th and 12th grades.

Only 65 percent of all local school staff teach. Only 50.5 percent are licensed teachers. Why do schools employ all the others? Which categories of support staff are required by regulations?

Can we retain small schools by avoiding some existing overhead costs?

Can we envision a school finance system that rewards efficient staffing patterns?

Source: Vermont Department of Education

VERMONT DEPARTMENT OF EDUCATION
Information Systems Unit

Staffing Summary

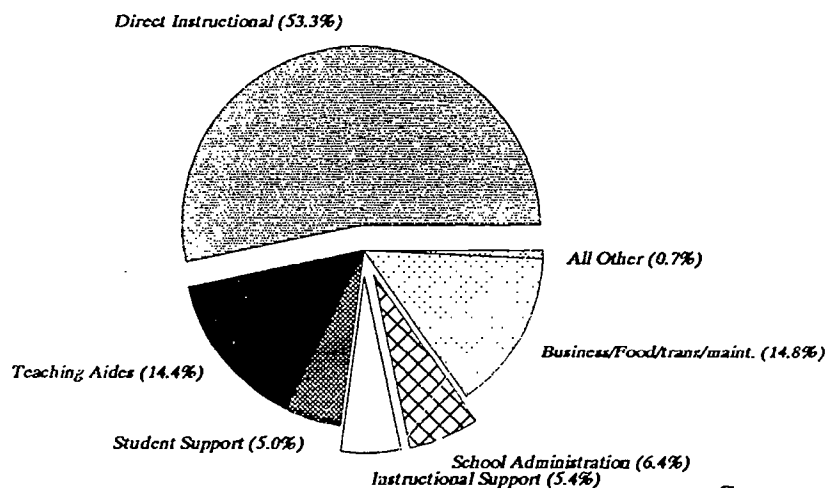
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		Full Time Equivalents			Line %	Area %
		Pub.Sch.	Superv.	Total	of Total	of Total
Function 1000 Direct Instructional Services	Preschool/PreKindergarten Teachers	12.1	7.5	19.6	0.1%	50.5%
	EEE Teachers	21.0	70.5	91.5	0.7%	
	Kindergarten Teachers	275.8	2.0	277.8	2.0%	
	Elementary Teachers (grades pre-1st, 1-6)	2,592.6	13.2	2,605.8	18.7%	
	Secondary Teachers (grades 7-12) inc. Vocational	2,817.4	9.3	2,826.7	20.3%	
	Teachers of Ungraded Classes (include Special Ed.)	570.1	130.0	700.0	5.0%	
9082.5 Total FTE's		476.5	32.8	509.3	3.7%	65.2%
		1,832.4	219.4	2,051.7	14.7%	
Function 2100 Support Services - Students	Teachers Aides - (only PAID staff, not volunteer aides)					5.2%
	Attendance & Social Work Personnel	11.0	6.0	17.0	0.1%	
	Guidance Counselors/Directors - Elem (grades pre-1st, 1-6)	128.8	5.7	134.5	1.0%	
	Guidance Counselors/Directors - Sec (grades 7-12)	168.8	2.5	171.3	1.2%	
	Nurses and Nurses Aides	168.0	13.9	181.9	1.3%	
	Psychological, Speech Pathology, & Audiology Services	140.0	54.3	194.3	1.4%	
722.2 Total FTE's		23.3	0.0	23.3	0.2%	5.7%
Function 2200 Support Services - Instructional Staff	School Registrars					
	Athletic Directors	32.8	0.0	32.8	0.2%	
	Audiovisual Staff	18.0	2.0	20.0	0.1%	
	Chapter 1 Coordinators	67.4	17.2	84.6	0.6%	
	Clerical & Secretarial Support Staff	162.7	16.3	179.0	1.3%	
	Curriculum Coordinators	5.0	12.6	17.6	0.1%	
	EEE Directors	5.0	11.0	16.0	0.1%	
	Librarians	186.8	5.0	191.8	1.4%	
	School Library Support Staff	145.3	5.0	150.3	1.1%	
	Special Education Directors	36.8	44.2	81.0	0.6%	
794.5 Total FTE's		2.7	1.0	3.7	0.0%	
Function 2300 Support Services - Gen. Administration	Title IX Coordinators					2.0%
	Vocational Education Directors	17.0	1.0	18.0	0.1%	
	Superintendents	0.0	61.0	61.0	0.4%	
	Assistant Superintendents	0.0	31.3	31.3	0.2%	
Function 2400 Support Services - School Administration	Administrative Assistants	0.0	22.0	22.0	0.2%	5.8%
	Clerical & Secretarial Support Staff	0.0	159.7	159.7	1.1%	
	Principals	287.6	2.0	289.6	2.1%	
	Assistant Principals	96.9	0.0	96.9	0.7%	
809.5 Total FTE's		343.8	0.0	343.8	2.5%	15.0%
Function 2500 Support Services - Business, ETC.	Clerical & Secretarial Support Staff	79.3	0.0	79.3	0.6%	
	Department Heads					
	Bookkeepers	0.0	5.5	5.5	0.0%	
	Business Managers	27.0	38.6	65.6	0.5%	
	Food Service Staff	696.0	30.0	726.0	5.2%	
Function 2600 Support Services - Central	Maintenance & Security Staff	778.8	91.5	870.2	6.3%	0.5%
	Student Transportation Staff	372.7	53.6	426.3	3.1%	
	Clerical & Secretarial Staff	32.3	24.4	56.7	0.4%	
	In-service Training Staff (for non-instructional personnel)	0.0	0.0	0.0	0.0%	
2093.6 Total FTE's		0.0	0.0	0.0	0.0%	0.5%
Function 2600 Support Services - Central	Planning, Research, & Development Staff	0.0	0.0	0.0	0.0%	
	Statistical & Data Processing Staff	3.9	14.4	18.3	0.1%	0.5%
75.0 Total FTE's		55.7	14.2	69.9	0.5%	
All Other Staff						100.0%
TOTALS		12,690.8	1,230.3	13,921.2	100.0%	

Public School Districts Staff FTE's by Category

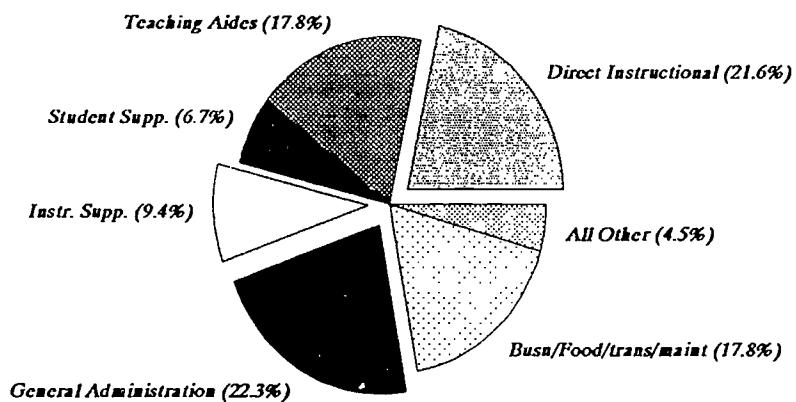
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332 Public
Schools Reporting

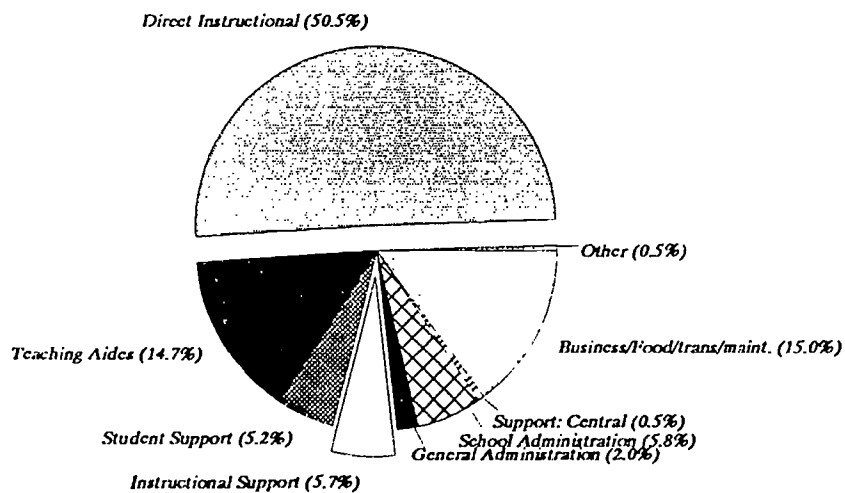
Supervisory Unions Staff FTE's by Category

59 Supervisory
Unions Reporting



Statewide Totals Staff FTE's by Category

391 Total
Reports



Vermont Dept of Education

Information & Statistics

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By...RVM

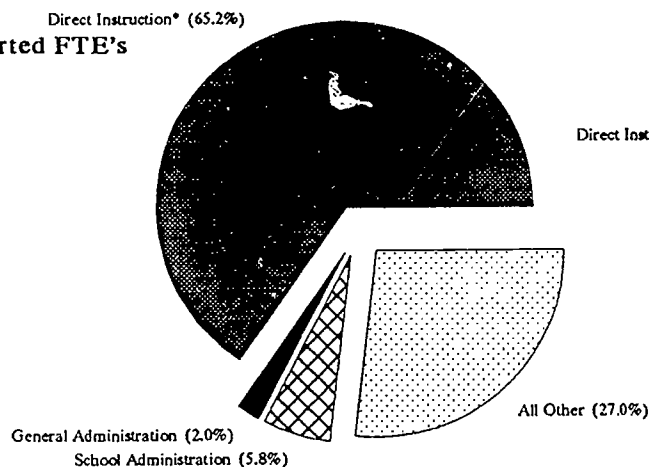
	FTE's	Salaries & Benefits	Average \$ / FTE
Direct Instruction*	9,083	\$305,590,568	\$33,646
General Administration	274	\$11,332,584	\$41,361
School Administration	810	\$30,720,621	\$37,949
All Other	3,755	\$79,936,538	\$21,287
Totals	13,921	\$427,580,311	

Statewide

294 LEA's Responded to Staffing Report also provided financial data.

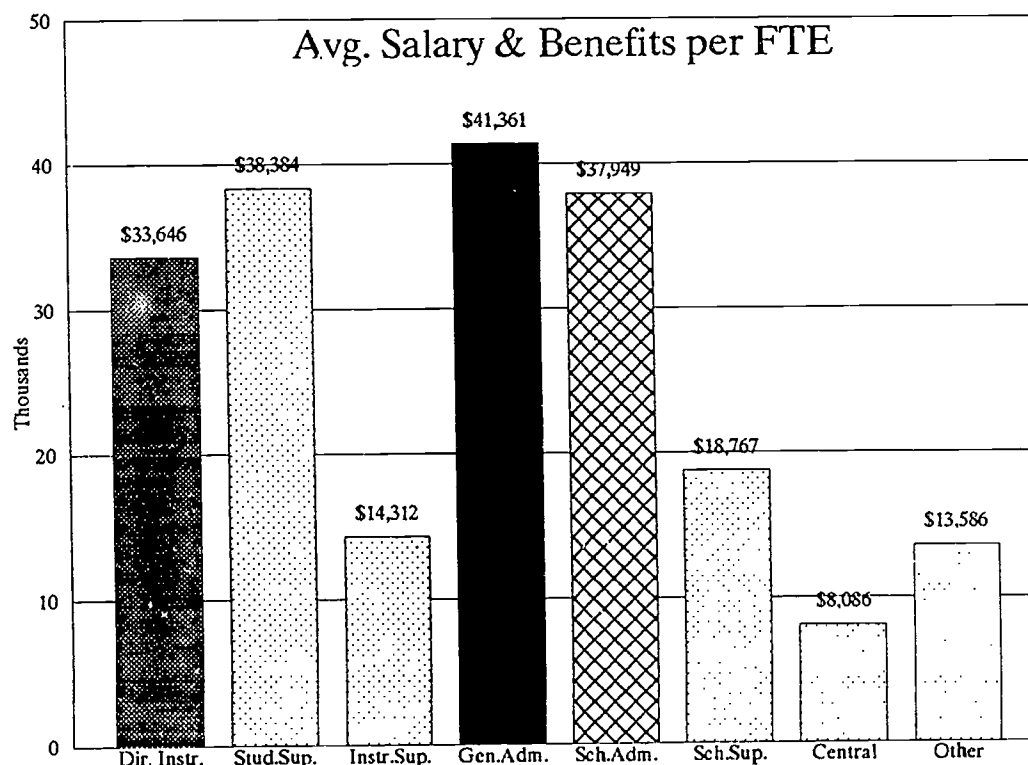
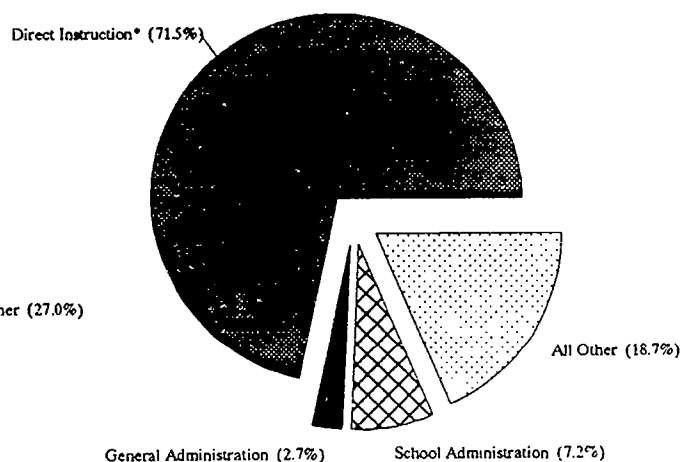
23 LEA's with no schools provided certain financial data not included here.

Reported FTE's



*includes aides

Reported Salaries & Benefits



Professional Assessment

Local and regional standards boards, now in place across the state, are working closely with teachers and requiring them to build long-range professional development goals.

Vermont Standards Board for Professional Educators

The Vermont Standards Board for Professional Educators has completed its third year of operation. It continues to stand as a model of the collaborative efforts of 23 educators representing the profession and the public.

The Consortium for Professional Development was launched this year and is on its way to creating a statewide professional development system. A new outcomes-based design for approval of teacher education programs has been approved and will be ready for implementation in 1993. Several endorsements have been reviewed and revised to better meet the needs of Vermont students.

Local and Regional Standards Boards

Each of the 60 supervisory unions now has a local standards board to serve licensed teachers. Five regional standards boards were created to serve licensed

administrators. Both boards are responsible for reviewing and approving Individual Professional Development Plans (IPDP) and professional development activities, and making recommendations for license renewal for the educators in their district.

Approximately 500 licensed educators serve on local and regional standards boards statewide.

An overwhelming number of boards reported many positive experiences resulting from the first year of operation. At the top of the list was collegiality — among the individual board members as well as between the board and the educators served by the board. Personal attention for the IPDP development from board members was frequently cited as another positive experience.

The IPDPs require educators to be thoughtful and to develop some long-range professional development goals. The new flexibility for earning relicensing credits has generated much discussion between boards and educators as they work to define quality professional development.

Source: Vermont Department of Education

Teacher Salaries

Having risen steadily since 1986, Vermont teacher salaries now rank 21st in the nation.

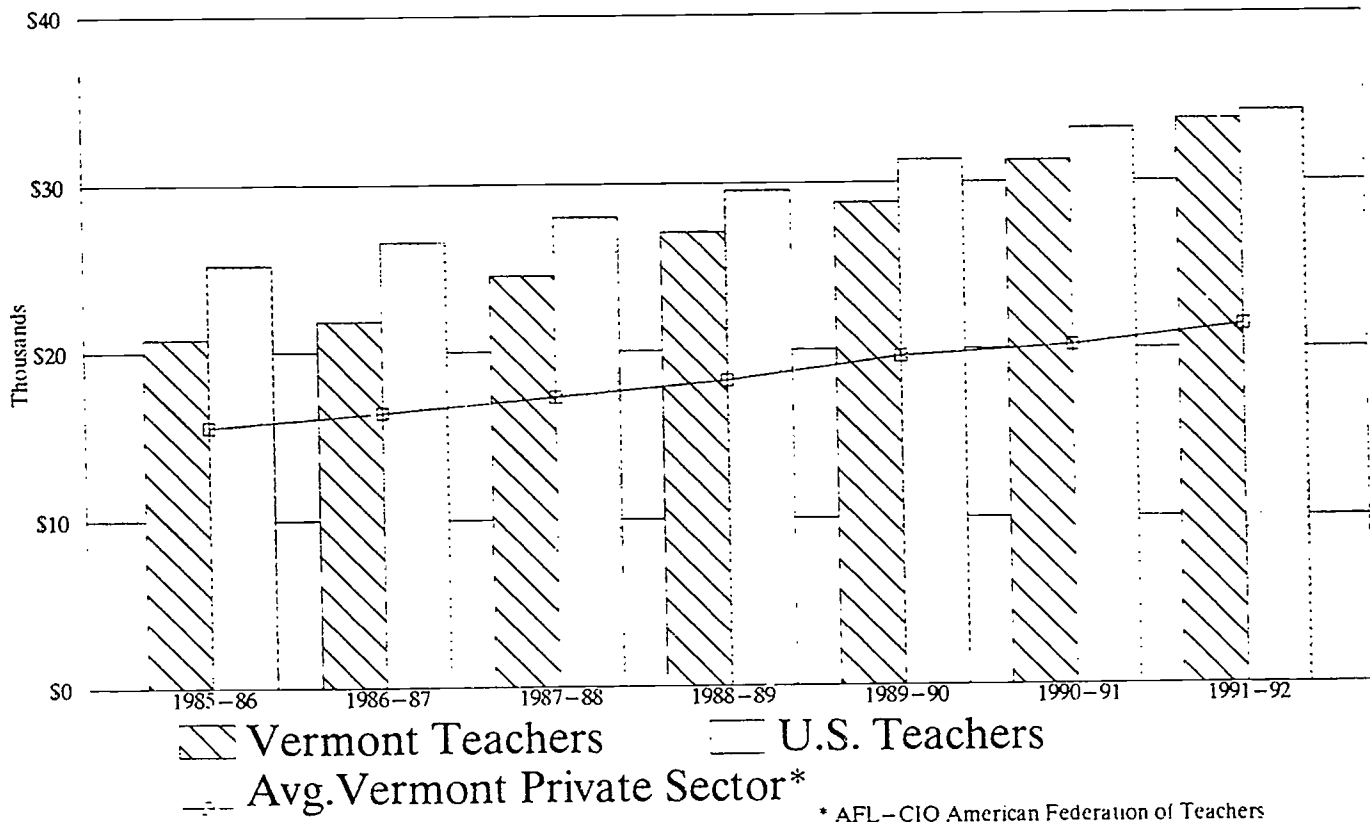
The National Education Association recently released its survey of teacher salaries. Salaries have risen steadily since 1986. In 1992, Vermont ranks 21st in the nation

for average teacher salaries at \$33,646; the national average is \$34,148. Two years ago, Vermont salaries were ranked 26th in the nation.

Source: National Education Association

Average Public School Teacher Salary

As Estimated by
National Education Association



Goal 4:

*Vermont parents, educators, students, and other citizens
will create powerful partnerships
to support teaching and learning in every community.*

- A three-year grant will help Vermont build student volunteerism and community-school collaboration.
- An array of innovative projects, backed in large part by private industry, is helping Vermont learners make new connections through technology.
- New coalitions are building relationships between Vermont educators and businesspeople, non-profit organizations, public officials, other states and school districts, and other concerned members of our communities.

How do we continue to attract partners so that everyone in Vermont is involved with schools?

What can we do to build public support in communities where schools are transforming themselves?

Community Service

A three-year grant will help Vermont build student volunteerism and community-school collaboration.

Vermont has been awarded a three-year grant from the Commission on National and Community Service to involve Vermonters in volunteer service projects. Vermont was one of eight states recognized as "leader states" for a portion of the grant. The state receives \$200,000 in the grant's first year, and will use part of the funds to expand volunteer learning activities for children both in and out of school.

Among the activities planned for the first year are these:

- Grants for student-initiated projects to integrate volunteerism and learning;

- Grants to encourage collaborations between schools and communities to design and carry out volunteer projects;
- Expanding a model Retired Senior Volunteer Program (RSVP) to match service opportunities with students and teachers, and to bring volunteers into the schools;
- Developing service-learning portfolios;
- Training teachers as volunteer-learning coordinators, and
- Expanding the size and scope of Vermont's Youth Conservation Corps (VYCC).

Source: Vermont Department of Education

Telecommunications for Learning

An array of innovative projects, backed in large part by private industry, is helping Vermont learners — and their parents — make new connections through technology.

ParentLink

More than 20 schools are participating this year in ParentLink, a voice-mail system that parents can use to receive teacher messages and homework assignments.

ParentLink was initiated by NYNEX and New England Telephone as part of the 10-year plan of the Business Partnership program. A recent survey on the use of ParentLink in these pilot schools finds it to be a very popular and useful tool:

- Over 86 percent of the parents and over 90 percent of the teachers use ParentLink.
- Over half the parents contact the school through ParentLink more than once a week.
- Fifteen percent of the parents use the system at least once every day.
- Fourteen percent of parents do not use ParentLink, either because they already use other means of home-school communication, they do not have the correct type of telephone, they do not understand how to use the system, or they don't wish to use the

system.

- Preparation of ParentLink bulletins takes less than 15 minutes for 75 percent of the teachers.
- Both parents (87 percent) and teachers (75 percent) think ParentLink is a good idea.
- Over 77 percent of the parents think that the presence of ParentLink makes their child's school a better school.
- Sixty-five percent of the teachers think ParentLink enhances their school.
- Principals have a generally favorable view of ParentLink in terms of fostering parental involvement.
- Principals would recommend ParentLink to other similar schools.

Source: Macro International, Inc., Burlington

Curriculum Projects

The Vermont Educational Telecommunications Consortium and NYNEX have funded 10 curriculum projects. The funding is designed to allow the sharing of specialized curricula.

Examples include an English teacher at Black River Union High School who is developing a "virtual" English classroom, where students can communicate with the other schools in this program to discuss the literature they are currently studying. And students at South Burlington Central Elementary School are collecting data on how other students view Vermont; they will then construct a textbook for Vermont incorporating those views.

Specialized Telecommunications Software

Another program sponsored by the Vermont Education Telecommunications Consortium includes 10 schools that received grants for specialized projects. Among the

projects is the use of *National Geographic's* KidsNet, through which students are studying acid rain. The students collect rain, pond water, and other indicators of acid rain, analyze the data, and share it with other students. A group of scientists from *National Geographic* are amassing this student-collected data to include it in a nationwide study on acid rain.

The National Foundation for Improvement of Education and NYNEX have funded "Vermont Students and Public Policy." Six elementary schools are working with the Legislature to develop and comment on new policy matters.

Source: Vermont Educational Telecommunications Consortium

Partnerships

New coalitions are building active, working relationships between Vermont educators and businesspeople, non-profit organizations, public officials, other states and school districts, and other concerned members of our communities.

The new connections between education and business are very extensive, and involve not only the leaders of groups such as the **Vermont Business Roundtable** and the **Vermont Chamber of Commerce**, but also many local businesspeople. Businesspeople have participated in creating the Vermont goals, the portfolio-based assessment program, the Common Core of Learning, and the challenge grants.

The **Business Roundtable** reviewed the proposal for a portfolio-based assessment and supported the idea with key legislators. After it was launched, the Roundtable got more than 200 companies to sign a pledge to tell students to bring their portfolios and transcripts when they interview for jobs. They call this program "Performance Counts."

"School Report Night" was piloted in two communities to model ways to inform the public about high performance. **New England Telephone** adopted the idea and gave \$25,000 to encourage the first 50 communities to hold school report nights. The success of these nights has caught on — during the 1991-92 school year, 139 schools hosted school report nights to open the school to the community and to highlight accomplishments.

The **Becker Associates** companies devoted their poll three years ago to education. They helped use the results as a focus for a series of conversations that evolved into the **Vermont Partners for Education**.

When the Education Department proposed a small challenge grant to inspire communities to reinvent

schools for high performance, the Legislature gave \$75,000 and members of the business community — **IBM, National Life, New England Telephone, Central Vermont Public Service, Chittenden Bankcorp** — donated \$50,000. Then the CEOs of most of those companies stood before 400 educators and delivered the challenge. Afterward, Vermont was invited to become part of the **National Alliance for Restructuring Education**.

As a member of the National Alliance, Vermont joined forces with 18 other partners, including businesses, non-profit corporations, and other states and school districts.

The business community has made a massive commitment to the successful National Science Foundation campaign. Vermont would not have won the grant if businesses had not put up significant cash before the NSF team even came to visit, and then pledged to raise \$2 million to match the grant. Businesspeople participated in idea sessions to write the grant, and also showed up to defend the ideas during NSF's site visit to determine whether Vermont should win.

IBM loaned the Department of Education a senior executive for two years to help build business-education partnerships in local communities.

The Department of Education and **Associated Industries of Vermont** formed a partnership to help school districts and technical centers provide "competency-based" instruction, services, and activities for students in the field of manufacturing technology.

The Department of Education, in collaboration with the **Community College of Vermont, Champlain Valley Union High School, Hazen Union High School, Lamoille Union High School, IBM, Digital Equipment Corp., the Vermont Chamber of Commerce, New**

England Telephone Company, National Life Insurance Company, Central Vermont Public Service Corporation, and Chittenden Bankcorp, was awarded a four-year Educational Partnerships program grant from the U.S. Department of Education. The Vermont Educational Partnerships project is designed to develop and coordinate business/education partnerships in support of reinventing Vermont schools.

In the 1991-92 school year, the Drug Abuse Resistance Education (DARE) program represented a partnership between 112 schools and the law enforcement community. From July 1991 to July 1992, 73 DARE officers were trained in Vermont.

This past year, 235 schools had an Alcohol and Other Drug Abuse Community Advisory Council involved in planning strategies to combat alcohol and drug abuse.

Through **Tech-Connections**, a partnership between secondary and post-secondary institutions, 92 secondary technical education students earned college credits in 1992.

The **Associated General Contractors (AGC)** of Vermont has been active in technical education for several years. The AGC agreement was the first agreement signed with an industry group in Vermont and was a direct result of the AGC's national commitment to quality in education. The national AGC, through its state affiliates, was one of the first industry groups to offer a helping hand to educators for the improvement of education in the U.S.

The **Vermont Automobile Dealers Association (VADA)** also has been a partner for several years. VADA was founded in 1945 and has been the leader in the automotive industry education and training in Vermont. VADA was instrumental in the starting of

Vermont's only post-secondary automotive technology program. At the same time members have been very supportive of the secondary school programs at Vermont Regional Technical Centers.

The Department of Education and the **Vermont Plantsmen's Association** have formed a partnership to promote the educational future of horticulture students at Vermont's regional technical centers. Among other benefits of the partnership, the Plantsmen's Association will help with job placement of graduates from certified horticulture programs at Regional Technical Centers.

More than 1,000 secondary school students will benefit from the partnerships with AGC, VADA, the Vermont Plantsmen's Association, and two or three other partnerships expected to be signed this year.

Sixty volunteers participated in training this year to serve as charter members of the **Vermont School Restructuring Corps**. The Corps will work with communities that are making profound changes in their schools.

The new organization is made of members of the business community, citizens, school boards members, superintendents, principals, teachers, education professors and graduate students. The Corps members were facilitators at the Vermont School Development Institutes.

Finally, more than 40 **community focus** forums have taken place across Vermont. The focus forums have provided communities with a chance to help create the Common Core of Learning. Also, by participating in a focus forum, communities and schools have acquired a structured, practical process they can use to discuss issues, set goals, and meet other education-related challenges in the future.

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